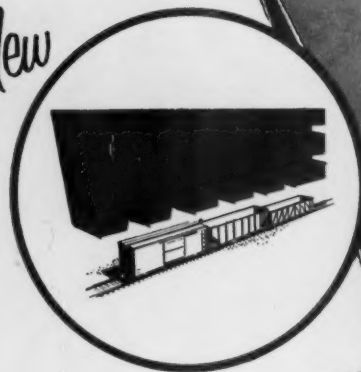


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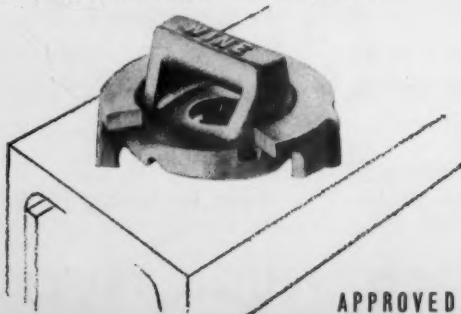


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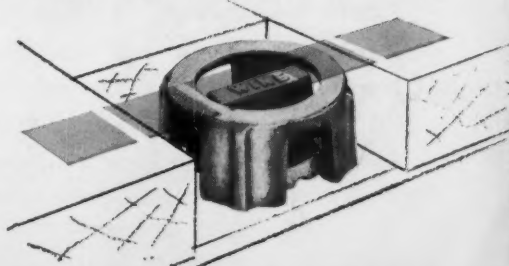
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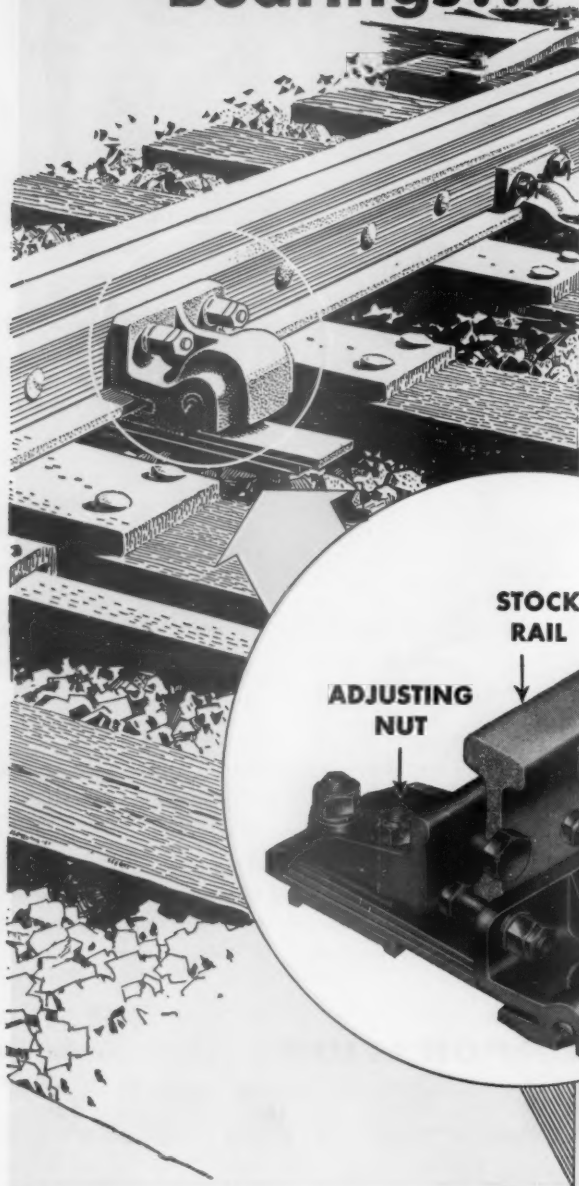
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September 12, 1955

Vol. 139, No. 11

Week at a Glance

850 billion ton miles a year! That's what James M. Symes, president of the Pennsylvania, thinks U. S. railroads may well be handling ten years from now. **6**

\$207 Million—that's the improvement in net income reported by Class I roads for this year's first seven months as compared to the same 1954 period. But the ratio of improvement seems to be tapering off, since July's gain over that month last year was only \$22 million. **7**

Prize winners in the Warren Brown-Railway Age essay contest on "Traditional Differentials" in railroad rate-making are Alan M. White of the Railroads' Tariff Research Group and W. G. Scott of the Railway Association of Canada. **13**

FORUM: Make the freight car stockpile big enough! Otherwise another all-out defense emergency will find the country disastrously short of mobilization capacity, because in a time of crisis materials to build cars are not likely to be provided in adequate quantities. **43**

Quick way to get tight cars — either by patching bad spots or by complete relining—is now available. The process involves Fiberglas cloth together with suitable plastics. **44**

Pennsy proves its Plypaks, obtaining a five-fold reduction in hot-box frequency with repacking intervals extended to 36 months. **46**

Less icing time at Laramie — important Pacific Fruit Express installation — means that individual cars in trains of eastbound perishables are now being re-iced in an average time of 45 seconds. **49**


What about "fringe" railroads? They don't enjoy the usual freedom of a short line, and they don't have the earning capacity of a trunk line, yet they perform a useful economic service. How can they be kept "in the black"? **51**



Engineer's Rear View Mirror

The Type "B" Brake Pipe Flow Indicator is much like a rear view mirror—it reflects what is going on in the brake pipe of his train—ofttimes a mile and a half away.

Westinghouse Air Brake
COMPANY

AIR BRAKE DIVISION  WILMERDING, PA.

Current Statistics

| | |
|--|-----------------|
| Operating revenues, seven months | |
| 1955 | \$5,684,845,763 |
| 1954 | 5,389,480,775 |
| Operating expenses, seven months | |
| 1955 | \$4,301,482,889 |
| 1954 | 4,316,285,150 |
| Taxes, seven months | |
| 1955 | \$ 613,146,288 |
| 1954 | 509,657,790 |
| Net railway operating income, seven months | |
| 1955 | \$ 622,823,893 |
| 1954 | 416,549,883 |
| Net income estimated, seven months | |
| 1955 | \$ 490,000,000 |
| 1954 | 283,000,000 |
| Average price railroad stock | |
| September 6, 1955 | 96.27 |
| September 7, 1954 | 68.89 |
| Carloadings, revenue freight | |
| Thirty-four weeks, 1955 | 24,146,326 |
| Thirty-four weeks, 1954 | 21,842,017 |
| Average daily freight car surplus | |
| Wk. ended August 27, 1955 | 5,482 |
| Wk. ended August 28, 1954 | 78,408 |
| Average daily freight car shortage | |
| Wk. ended August 27, 1955 | 12,713 |
| Wk. ended August 28, 1954 | 628 |
| Freight cars on order | |
| August 1, 1955 | 42,888 |
| August 1, 1954 | 12,889 |
| Freight cars delivered | |
| Seven months, 1955 | 19,340 |
| Seven months, 1954 | 25,403 |
| Average number of railroad employees | |
| Mid-July 1955 | 1,090,756 |
| Mid-July 1954 | 1,078,232 |

RAILWAY AGE IS A MEMBER OF ASSOCIATED BUSINESS PUBLICATIONS (A.B.P.) AND AUDIT BUREAU OF CIRCULATION (A. B. C.) AND IS INDEXED BY THE INDUSTRIAL ARTS INDEX, THE ENGINEERING INDEX SERVICE AND THE PUBLIC AFFAIRS INFORMATION SERVICE. RAILWAY AGE, ESTABLISHED IN 1856, INCORPORATES THE RAILWAY REVIEW, THE RAILWAY GAZETTE, AND THE RAILWAY AGE GAZETTE. NAME REGISTERED IN U. S. PATENT OFFICE AND TRADE MARK OFFICE IN CANADA.

Departments

| | |
|------------------------------------|----|
| Abandonments | 60 |
| Current Publications | 39 |
| Equipment & Supplies | 58 |
| Figures of the Week | 7 |
| Financial | 60 |
| Forum | 43 |
| Freight Operating Statistics | 10 |
| New Facilities | 66 |
| Organizations | 9 |
| People in the News | 8 |
| Questions and Answers | 16 |
| Railway Officers | 66 |
| Rates & Fares | 7 |
| Supply Trade | 9 |
| What's New in Products | 41 |

Week at a Glance CONTINUED

Teletype tape controls switches in the big N&W hump yard at Portsmouth, Ohio. That means that a tape punched for the entire train causes the proper switches to be set automatically to route each car to the selected classification track as it goes over the hump. 53

PS-4, that's the standardized flat car now being turned out by Pullman-Standard. The first lot is running for the Western Pacific. 55

BRIEFS

"Don't stand me still!"—already mentioned in these pages as a slogan now appearing on box cars coming out of the PRR Altoona shops—is also the title of a song recorded for that railroad by a quartet of train service employees and distributed and broadcast all over the railroad in the interest of increasing the time freight cars spend in motion.

Five flood-struck Eastern railroads got a lift from the Army which leased to them 104 diesel locomotives, most of which were drawn from storage. Of these, 43 went to the Pennsylvania, 20 to the New York Central, 20 to the New Haven, 15 to the Lackawanna and six to the Erie. The Office of Defense Mobilization has announced that it will grant "fast writeoff" certificates for rehabilitation of flood-damaged track and terminals and railroad equipment production facilities.

A new design gas turbine locomotive is rumored to be on its way into the railroad industry. One large western road is said to be contemplating purchase of 15 of the new locomotives, each of which would consist of two units developing 7,000 hp.

Partly destroyed by Lawrence of Arabia during the first World War, the railroad which crosses the desert from Damascus to Medina may be restored to service. Reconstruction work is being sponsored by Syria, Jordan and Saudi Arabia, and bids for various phases of the job are expected to be requested soon.

Symes Sees Big RR Growth Ahead

By 1965, rail ton-miles can exceed 850 billion a year; changing patterns to call for 10-year expenditures of \$20 billion

The nation's railroads ten years from now may well be handling in excess of 850 billion ton miles a year—53% more than the 1954 total, James M. Symes, president of the Pennsylvania, predicted last week.

Mr. Symes spoke at a special luncheon at Chicago, marking railroad day at General Motors "Powerama."

To meet the growing needs in the next decade will call for twenty billion dollars of capital improvements by the railroad industry, Mr. Symes declared. Such expenditures, he said, would be about double the railroad spending rate of the past ten years.

Mr. Symes also forecast a revived role for railroads in the carrying of passengers. He said developments such as GM's new "Aerotrain" will result in a capital investment low enough to justify fares the public will accept and at the same time return a profit.

Ton-miles to Grow—The PRR president said railroads in 1954 with 557 billion ton-miles, participated in 51% of total intercity business. He added:

"If the downward trend of the past

ten years continued unabated during the next ten years, then by 1965 railroads would be called upon to handle 650 billion ton-miles of intercity freight—17% more than last year. If the distribution leveled off on the 1954 basis, they would be called upon to handle 790 billion ton-miles—42% more than last year.

"If railroads were called upon to handle as much as 55% of the total in 1965, that would mean 852 billion ton-miles—53% more than last year, and 14% more than they handled in their record year of 1944.

"I am optimistic enough to believe that 55% participation by the industry in the nation's transportation should be the minimum by 1965," Mr. Symes declared.

Behind the Growth.—Mr. Symes said several basic factors underlie his optimistic outlook.

There is, he continued, a growing public appreciation of the fact that railroads are the truly low-cost transport agency, and that it is in the public interest that they receive greater freedom to compete and something nearer

equality in the way they are governed, regulated and taxed in contrast to their competitors.

A more aggressive pricing policy by railroads, the great promise of "piggyback" service, and beneficial effects from automation are other factors, he said.

Speaking of piggybacks, the PRR president said his road handled 800 truck trailers the week of August 29. This was at a rate of \$8,000,000 gross annually, he added.

"Freight cars are going to have to be kept on the move to a greater extent than they are today," Mr. Symes continued. "The economics of initial investment dictate that they will have to earn more revenue than they now do.

"With freight cars actually on the move only two and one-third hours out of 24, there is plenty of opportunity to bring about this needed improvement," he declared.

Most of this improvement, he went on, will come from technological improvements—mechanized terminals, improved signals, and a rebuilt plant designed to meet tomorrow's requirements and performance.

Passengers, Too—N. C. Dezendorf, vice-president of General Motors and general manager of Electro-Motive said the first "Aerotrain," now on exhibit at "Powerama," is earmarked for the PRR. Mr. Symes said the train would be exhibited beginning about November 1, and later would be tested in service between New York and Pittsburgh.

With better acceleration and ability to take curves faster, this new train may be able to make a 15% faster schedule between the two cities, he said.

The so-called "tubular" train being built for the PRR by the Budd Company will probably see initial service between New York and Washington, D.C., Mr. Symes added. The road expects to receive the latter train next spring.

As yet, the PRR has no plan of adjusting passenger fares downward with this new equipment, Mr. Symes said. He said selling these new trains to the public is a "marketing job," and it is possible that fares between different cities may eventually differ, depending on the particular situation in each case.



OHIO GOVERNOR FRANK J. LAUSCHE (second from left), cuts ribbon to open officially the railroad display at the recent Ohio State Fair in Columbus. Twenty pieces of equipment, both modern and antique, were in the exhibit, sponsored by the Rail-

road Community Committee of Columbus and railroads serving the state of Ohio. The exhibit was arranged by the state Historical Society, which is planning a permanent railroad historical exhibition hall on the state fair grounds.

CPR to Cut Montreal-St. John Schedule

A new overnight schedule cutting approximately two hours from its Montreal-St. John, N. B., run will become effective September 25 with the next time table change on the Canadian Pacific. Complete dieselization has



JOSEPH A. FISHER, Reading president, accepts some of the supplies contributed by the road's employees and commuters for the relief of families made homeless by recent floods in the area served by the railroad.

made possible the cut in running time of trains 41 and 42, which have also been equipped with new Budd-built, all-stainless-steel, streamlined coaches and sleeping cars.

Schedules of the SS "Princess Helene" between St. John and Digby, N. S., are being altered to conform with the new train times and to permit more than an hour at St. John for connections.

Long Island Adds More Mid-day Trains

The Long Island's branch-by-branch overhauling of timetables to make mid-day rail travel more attractive was extended to the Port Washington branch September 6 with the addition of 10 new trains to provide half-hourly service.

Running times of most mid-day trains were reduced, and between 9 a.m. and 4 p.m. there is a train every half hour between Pennsylvania Station, New York, and Port Washington. The new Port Washington branch schedules offer express runs in 36 minutes and local runs in 44 minutes, compared with about 47 minutes on most non-commuter trains.

Rates & Fares

Western Canada Grain Rates Raised 10%

The Canadian Board of Transport Commissioners has authorized an increase of about 10% in railroad rates for transporting western domestic grain. The new rate, a further step

toward equalization of western and eastern rail freight rates on grain, becomes effective next January 1. A further increase of approximately 20% would be necessary to bring western rates up to the level of eastern rates.

Chicago Roads Offer Special 'Powerama' Fares

Reduction of coach fares by several railroads is helping stimulate attendance at the General Motors "Powerama" show in Chicago.

Most of the lower fares are effective on weekends until September 25, when the GM show closes. They are good up to 300 miles, and rates are one and one-third the regular one-way fare. Return portions may be used up to midnight on Mondays.

Among participating roads are the Burlington; Chicago & North Western;

Milwaukee; Rock Island and Santa Fe. Some roads offer "package tours" of Chicago as an optional, added attraction.

The New York Central has published a one-day excursion fare, good on September 17, from various cities in Indiana and Michigan. This rate is one-half the normal round-trip fare.

A reduction published by the Chicago & Eastern Illinois is good any day, September 6 to September 25. The adult fare is 120% of one-way. For children, ages 5 to 15, round-trip fare is 50 cents.

Attendance at "Powerama," meanwhile, has been record setting. The show, which opened August 31, is free to the public. It includes a large display of railroad equipment from various GM divisions (*Railway Age*, September 5, page 9).

Over the three-day Labor Day weekend, an estimated 450,000 persons visited the show site.

Figures of the Week

July Net Up \$22 Million

AAR estimates month's earnings at \$72 million; seven-month figure put at \$490 million, up \$207 million

Estimated net income of Class I roads in July, after interest and rentals, amounted to \$72,000,000, compared with \$50,000,000 for July 1954, according to the Bureau of Railway Economics, Association of American Railroads.

Net income for the first seven months of 1955, after interest and rentals, was put at \$490,000,000, compared with \$283,000,000 for the same period last year.

Net railway operating income for the seven-month period this year, before interest and rentals, came to \$622,823,893, as against \$415,549,883 for the corresponding period in 1954. For the month of July 1955, net railway

operating income, before interest and rentals, totaled \$92,612,113, compared with \$71,155,175 in July 1954.

Rate of return for the 12 months ended July 1955 averaged 4.05%, compared with 3.32% for the 12 months ended July 1954.

July gross was put at \$849,559,590, compared with the July 1954 gross of \$779,846,202. Gross for the first seven months of 1955 came to \$5,684,845,763, compared with \$5,389,480,775 in the same period of 1954, an increase of 5.5%. Operating expenses for the first seven months this year amounted to \$4,301,482,889, compared

CLASS I RAILROADS—UNITED STATES

| | Month of July | |
|--|-----------------|-----------------|
| | 1955 | 1954 |
| Total operating revenues | \$ 849,559,590 | \$ 779,846,202 |
| Total operating expenses | 644,827,920 | 618,597,281 |
| Operating ratio—per cent | 75.90 | 79.32 |
| Taxes | 90,034,664 | 67,664,974 |
| Net railway operating income (Earnings before charges) | 92,612,113 | 71,155,175 |
| Net income, after charges (estimated) | 72,000,000 | 50,000,000 |
| Seven months ended July | | |
| Total operating revenues | \$5,684,845,763 | \$5,389,480,775 |
| Total operating expenses | 4,301,482,889 | 4,316,285,150 |
| Operating ratio—per cent | 75.67 | 80.09 |
| Taxes | 613,146,288 | 509,657,790 |
| Net railway operating income (Earnings before charges) | 622,823,893 | 416,549,883 |
| Net income, after charges (estimated) | 490,000,000 | 283,000,000 |

Briefly . . .

. . . A tract of 3,800 acres in northern Idaho has been established as the Northern Pacific's seventh tree farm. The NP now has nearly 484,000 acres of forest lands certified as tree farms. Such tracts are managed for perpetual forest crops under the principles of the American Tree Farm system. Owners, under that system, must pledge to provide reasonable protection from fire, insects and disease, to prevent damage from excessive grazing, and to harvest trees in a manner that will assure future crops. Last year the NP began aerial surveys of its forest land holdings and, from information thus developed, will plan areas of sufficient size for sustained yields.

with \$4,316,285,150 in the same period last year, a decrease of 0.3%.

Sixteen Class I roads failed to earn interest and rentals in the first seven months of 1955. Seven of the roads were in the Eastern District, four in the Southern Region and five in the Western District.

Freight Car Loadings

Carloadings for the week ended September 3 were not available as this issue went to press.

Loadings of revenue freight for the week ended August 27 totaled 791,977 cars; the summary, compiled by the Car Service Division, AAR, follows:

| REVENUE FREIGHT CAR LOADINGS | | | |
|--|---------|---------|---------|
| For the week ended Saturday, August 27 | | | |
| | 1955 | 1954 | 1953 |
| District | 122,579 | 108,916 | 136,730 |
| Eastern | 153,644 | 121,648 | 162,941 |
| Alleghany | 62,226 | 46,555 | 62,296 |
| Poconchos | 125,977 | 114,769 | 124,170 |
| Southern | 130,143 | 113,694 | 146,798 |
| Northwestern | 129,601 | 115,210 | 127,121 |
| Central Western | 58,787 | 56,006 | 59,955 |
| Southwestern | | | |
| Total Western | | | |
| Districts | 327,551 | 284,810 | 332,304 |
| Total All Roads | 791,977 | 676,698 | 818,461 |
| Commodities: | | | |
| Grain and grain products | 51,263 | 52,103 | 50,511 |
| Livestock | 7,784 | 8,621 | 9,136 |
| Coal | 135,738 | 109,663 | 136,191 |
| Coke | 12,361 | 6,962 | 12,749 |
| Forest Products | 48,173 | 38,350 | 46,704 |
| Ore | 91,070 | 58,579 | 94,062 |
| Merchandise l.c.l. | 63,273 | 63,446 | 70,458 |
| Miscellaneous | 382,315 | 338,974 | 395,650 |
| August 27 | 791,977 | 676,698 | 818,461 |
| August 20 | 780,863 | 678,624 | 817,446 |
| August 13 | 775,397 | 685,272 | 807,622 |
| August 6 | 765,452 | 667,592 | 785,349 |
| July 30 | 795,771 | 683,617 | 793,754 |

Cumulative total,
34 weeks24,146,326 21,842,017 25,350,217

In Canada.—Carloadings for the seven-day period ended August 21 totaled 85,436 cars, compared with 85,258 cars for the previous seven-day

"NO PANTYWAISTS" ON THE B&M

In *Railway Age*, August 29, page 7, in reporting the effects of August 18-19 floods on eastern railroads, it was stated that the Boston & Maine ceased all operations for about 4½ hours on August 19 "as a precautionary measure."

Lloyd J. Kiernan, executive vice-president of the B&M, takes mild exception to that statement. "Even in supposedly effete New England," he writes, "we are not that pantywaist. What stopped us from operating during the hours mentioned was the fact that at Somerville, just north of the North Station [Boston], the water rose over our tracks to a depth of 10 inches, so that we could not get through with axle-mounted electrical equipment on our Budds and diesels. There being no place to go from the station, the only sensible thing left was to close down the station, which we did. It wasn't a 'precautionary measure'; it was demonstrable inability to operate."

period, according to the Dominion Bureau of Statistics.

| | Revenue Cars Loaded | Total Cars Rec'd from Connections |
|--------------------|---------------------|-----------------------------------|
| Totals for Canada: | | |
| August 21, 1955 | 85,436 | 30,872 |
| August 21, 1954 | 74,814 | 26,898 |
| Cumulative Totals: | | |
| August 21, 1955 | 2,502,085 | 1,034,102 |
| August 21, 1954 | 2,292,384 | 920,087 |

June Accidents

The Interstate Commerce Commission has released its Bureau of Trans-

port Economics and Statistics' preliminary summary of railroad accidents for June and this year's first six months. The compilation, subject to revision, follows:

| Item | Month of June | | 6 months ended with June | |
|---|---------------|-------|--------------------------|--------|
| | 1955 | 1954 | 1955 | 1954 |
| Number of train accidents* | 711 | 625 | 3,971 | 3,699 |
| Number of accidents resulting in casualties | 43 | 31 | 217 | 235 |
| Number of casualties in train, train-service and non-train accidents: | | | | |
| Trespassers: | | | | |
| Killed | 78 | 78 | 335 | 362 |
| Injured | 70 | 91 | 348 | 422 |
| Passengers on trains: | | | | |
| (a) In train accidents: | | | | |
| Killed | 21 | 67 | 199 | 138 |
| Injured | | | | |
| (b) In train-service accidents: | | | | |
| Killed | 3 | 1 | 6 | 6 |
| Injured | 113 | 151 | 778 | 851 |
| Travelers not on trains: | | | | |
| Killed | | | 4 | 2 |
| Injured | 52 | 53 | 434 | 414 |
| Employees on duty: | | | | |
| Killed | 22 | 20 | 113 | 107 |
| Injured | 1,469 | 1,406 | 8,206 | 7,841 |
| All other non-trespassers: | | | | |
| Killed | 104 | 105 | 668 | 690 |
| Injured | 415 | 373 | 2,610 | 2,522 |
| Total—All classes of persons: | | | | |
| Killed | 207 | 204 | 1,126 | 1,167 |
| Injured | 2,140 | 2,143 | 12,575 | 12,188 |

* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused damage of \$350 or more to railway property in 1954. Beginning January 1, 1955, this minimum was raised to \$375. Only a minor part of the total accidents result in casualties to persons, as noted above.

**Casualties to "Other non-trespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and non-trespassers, were as follows:

| | Persons | Killed | Injured |
|------|---------|--------|---------|
| 1955 | 93 | 91 | 614 |
| 1954 | 272 | 215 | 1,805 |

People in the News

New Safety Chief With ICC Since 1920

Francis C. MacDonald, new chief of the Section of Railroad Safety in the ICC's Bureau of Safety and Service, has been a member of the commission's staff since 1920. As reported in *Railway Age*, September 5, page 7, he was assistant chief of the section when he moved up September 1 to succeed Shirley N. Mills who retired the previous day.

Mr. MacDonald had about 17 years of railroad service as a fireman and locomotive engineer with the Pennsylvania when he joined the commission's staff as a field inspector of safety appliances at Chicago.

He was transferred to Washington, D.C., as inspector, accident investigation, in 1937, becoming chief of the Accident Investigation Section that year. In 1938, Mr. MacDonald was named chief of the Safety Appliances Section and was made acting assistant



TO REPLACE FIXED FACILITIES, the Illinois Central has converted an old steam tender for \$3,000 to supply a diesel switcher with fuel oil and

sand. The tender holds 10,000 gal of fuel (enough to last five months) and 130 cu ft of sand. The tender goes to any nearby terminal for refilling.



MICHAEL A. O'BRIEN, assistant freight traffic manager of the Canadian National-Grand Truck at Detroit, who has been elected president of the Michigan Traffic Association.

director of the Bureau of Safety in 1954. When that bureau was merged into the present Bureau of Safety and Service he was appointed assistant chief of the Section of Railroad Safety.

As successor to Mr. Mills, Mr. MacDonald has also been named assistant director of the Bureau of Safety and Service. Born in 1885, Mr. MacDonald will reach retirement age this year. He is a native of Ayr, Ont., Canada, and received his education in Chicago, taking extension courses in mathematics at the University of Wisconsin.

Organizations

RR YMCA Officers to Meet November 9-11

W. J. Tuohy, president of the Chesapeake & Ohio, will be among the featured speakers at the three-day National Assembly of Transportation Department YMCA's, at the Congress Hotel, Chicago, November 9-11. Constituting a conclave of secretaries and other staff members of railroad YMCA's throughout the country, the meeting is both a workshop on housekeeping and program problems of the Y's, and an inspirational session.

Commissioner Owen Clarke of the Interstate Commerce Commission will be the speaker at the banquet session on November 9, and W. P. Kennedy, president of the Brotherhood of Railroad Trainmen, will share the November 10 banquet session with Mr. Tuohy.

TAA to Sponsor Meet At Houston, October 7

"Are areas of agreement possible on the Cabinet Committee Report on Transport Policy?"

A panel discussion sponsored by the Transportation Association of America will explore this question in a meeting at Houston, Tex., October 7.

The TAA is planning an all-day session at Houston in cooperation with local transportation groups. There will be two panel discussions, morning and afternoon, and the latter will focus attention on the Cabinet Committee Report. Theme of the meeting will be, "Pulling Together For a Stronger Transportation System."

Frank O. Prior, president, Standard Oil Company of Indiana, will be luncheon speaker. He will talk on "Time for Transportation Statesmanship."

Other speakers include R. C. Waehner, general manager, distribution division, Lever Brothers Company. Mr. Waehner will discuss, "Transportation Users Want the Best."

The 43rd National Safety Congress and Exposition will be staged in Chicago October 17-21. The Railroad section of the National Safety Council will hold sessions at the Morrison Hotel on the afternoons of the 18th, 19th and 20th.

Speakers to address the Railroad section's annual meeting include Owen Clarke, Interstate Commerce Commissioner; C. R. Harding, president, Pullman Company; J. H. Kline, president and general manager, Lake Superior & Ishpeming; and Senator Everett M. Dirksen of Illinois. The section will mark its 40th anniversary with a special luncheon on the 19th.

The exposition will feature 256 booths displaying all types of accident prevention equipment. These will be at the Conrad Hilton Hotel.

The Wyoming Valley Traffic Club schedule for the coming year calls for meetings at Kingston, Pa., October 5, December 7, February 1 and April 4, and at Scranton, Pa., November 2, January 4 and March 7.

The 97th regular meeting of the Atlantic States Shippers Advisory Board will be held at the Hotel Sheraton-Ten Eyck, Albany, N.Y., October 5-6. J. Roger Deas, of the American Can Company, will speak at a luncheon on the 6th.

The annual dinner of the Railway Progress Institute will be held at the Conrad Hilton Hotel, Chicago, November 18. As announced in *Railway Age*, July 11, page 62, the first general membership meeting also will be held that day.

The Fire Protection & Insurance Section, Association of American Railroads, will hold its annual meeting at the Lord Baltimore Hotel, Baltimore, October 3-5.

The tenth annual convention of the National Defense Transportation Association will be held at the Sheraton-Plaza Hotel, Boston, October 12-15. Among the speakers will be Clark Hungerford, president, St. Louis-San

Francisco; A. L. Hammell, president, Railway Express Agency; Earl B. Smith, director of transportation and communications, Department of Defense; and Major General Paul F. Yount, chief of transportation, Department of the Army.

The 98th regular meeting of the Pacific Coast Shippers Advisory Board will be held at the Hotel Sir Francis Drake, San Francisco, September 22-23. At a luncheon on the second day, Harold D. Weber, public relations consultant, will discuss "Public Relations—Traffic and Transportation."

The 94th regular meeting of the Great Lakes Regional Advisory Board will be held at the Hotel Statler, Detroit, September 27-28. Harvey J. Campbell, executive vice-president, Detroit Board of Commerce, will speak at the luncheon on September 28, to be co-sponsored by the Traffic Club of Detroit.

Supply Trade

David T. Marvel, a vice-president of Olin Mathieson Chemical Corporation, has been appointed vice-president, sales, of the metals division.

Robert G. Bielenberg, manager of transportation service, National Aluminate Corporation, has been named assistant vice-president of the transportation division.

Herbert W. Chamberlain, president of General Railway Signal Company since 1952, has been elected chairman of the executive committee. He has been succeeded as president by Arthur E. Heimbach, executive vice-president.

Fay Thomas, formerly general superintendent, diesel-electric, of the New (Continued on page 58)



EMIL P. KONDRA, who has been appointed vice-president, sales, National Brake Company, at New York (*Railway Age*, August 22, page 13).

Freight Operating Statistics of Large Steam Railways—Selected Items

| Region, Road end Year | Miles of road operated | Train-miles | Locomotive-Miles | | Car-Miles | | Ton-miles (thousands) | | Road-locom. on line | | | | | |
|------------------------|---|-------------|----------------------|-----------|--------------------|-----------------|-----------------------------|-----------------------|---------------------|-----------|---------------|-----|------|------|
| | | | Principal and helper | Light | Loaded (thousands) | Per cent loaded | Gross excl. locos & tenders | Net rev. and non-rev. | Serviceable | B.O. | Per cent B.O. | | | |
| New England Region | Boston & Maine..... | 1955 | 1,564 | 247,572 | 252,771 | 9,336 | 9,829 | 68.5 | 614,421 | 252,054 | 66 | 1 | 5 | 6.9 |
| | 1954 | 1,664 | 250,074 | 253,668 | 7,441 | 8,626 | 65.0 | 564,877 | 222,470 | 71 | 2 | 4 | 5.2 | |
| | N. Y., N. H. & Htd..... | 1955 | 1,746 | 292,461 | 292,485 | 20,548 | 12,865 | 70.8 | 766,383 | 315,322 | 93 | 1 | 6 | 6.1 |
| | 1954 | 1,747 | 278,221 | 278,221 | 17,247 | 11,364 | 65.9 | 712,025 | 283,888 | 94 | .. | 4 | 4.1 | |
| | Delaware & Hudson | 1955 | 792 | 180,415 | 185,350 | 5,600 | 9,603 | 71.7 | 639,606 | 332,432 | 38 | .. | 3 | 7.3 |
| | 1954 | 793 | 181,675 | 185,597 | 9,307 | 8,379 | 65.6 | 581,586 | 291,060 | 36 | 5 | 6 | 12.8 | |
| | Del., Lack. & Western | 1955 | 962 | 281,598 | 294,415 | 21,604 | 12,386 | 69.8 | 793,388 | 345,148 | 62 | .. | 1 | 1.6 |
| | 1954 | 962 | 248,371 | 259,557 | 20,072 | 10,835 | 65.5 | 722,470 | 306,840 | 60 | .. | 2 | 3.2 | |
| | Erie..... | 1955 | 2,224 | 588,389 | 595,098 | 17,301 | 32,258 | 68.5 | 2,000,704 | 780,775 | 163 | .. | 1 | 1.6 |
| | 1954 | 2,225 | 538,264 | 541,283 | 19,937 | 29,073 | 66.3 | 1,861,049 | 714,810 | 162 | .. | 3 | 1.8 | |
| Great Lakes Region | Grand Trunk Western..... | 1955 | 952 | 248,934 | 255,199 | 2,124 | 8,623 | 60.2 | 606,290 | 234,991 | 57 | 3 | 19 | 24.1 |
| | 1954 | 952 | 240,386 | 244,190 | 1,786 | 7,975 | 58.4 | 572,283 | 222,407 | 59 | 1 | 15 | 20.0 | |
| | Lehigh Valley..... | 1955 | 1,142 | 218,562 | 221,599 | 7,880 | 10,847 | 67.8 | 739,962 | 348,847 | 34 | .. | 1 | 2.9 |
| | 1954 | 1,150 | 201,618 | 205,281 | 5,871 | 9,779 | 63.8 | 685,575 | 311,630 | 31 | 2 | 1 | 2.9 | |
| | New York Central..... | 1955 | 10,661 | 2,576,555 | 2,619,654 | 97,474 | 103,553 | 61.8 | 7,427,665 | 3,345,321 | 590 | 41 | 99 | 13.6 |
| | 1954 | 10,663 | 2,246,775 | 2,289,413 | 84,768 | 87,948 | 59.4 | 6,345,010 | 2,742,923 | 576 | 132 | 142 | 16.7 | |
| | New York, Chic. & St. L..... | 1955 | 2,154 | 745,050 | 776,581 | 7,578 | 31,070 | 66.4 | 2,146,218 | 970,074 | 161 | 150 | 30 | 14.6 |
| | 1954 | 2,161 | 646,481 | 674,250 | 6,406 | 25,704 | 63.1 | 1,809,269 | 766,839 | 158 | 43 | 37 | 15.5 | |
| | Pitts. & Lake Erie | 1955 | 221 | 66,701 | 66,829 | .. | 3,079 | 71.0 | 266,418 | 171,139 | 14 | 7 | 2 | 8.3 |
| | 1954 | 221 | 51,251 | 51,251 | 60 | 2,284 | 64.1 | 199,792 | 121,365 | 15 | 7 | 2 | 8.3 | |
| Central Eastern Region | Wabash..... | 1955 | 2,381 | 545,238 | 546,176 | 5,971 | 24,677 | 66.2 | 1,582,409 | 600,438 | 102 | .. | 1 | 1.0 |
| | 1954 | 2,381 | 504,609 | 505,503 | 6,474 | 21,763 | 64.4 | 1,407,760 | 520,339 | 103 | .. | .. | .. | |
| | Baltimore & Ohio..... | 1955 | 6,072 | 1,587,451 | 1,752,184 | 168,679 | 65,339 | 63.6 | 5,079,600 | 2,498,321 | 446 | 10 | 100 | 18.0 |
| | 1954 | 6,077 | 1,409,618 | 1,543,400 | 130,300 | 56,683 | 60.7 | 4,392,796 | 2,100,110 | 426 | 80 | 107 | 17.5 | |
| | Bessemer & Lake Erie..... | 1955 | 208 | 59,984 | 65,003 | 230 | 3,293 | 57.2 | 405,856 | 260,455 | 17 | .. | .. | .. |
| | 1954 | 209 | 53,753 | 58,008 | 172 | 3,167 | 64.1 | 364,113 | 239,676 | 15 | .. | .. | .. | |
| | Central RR Co. of New Jersey..... | 1955 | 613 | 123,648 | 124,462 | 5,568 | 4,906 | 66.7 | 362,909 | 189,483 | 62 | .. | 6 | 8.8 |
| | 1954 | 613 | 122,170 | 122,883 | 5,562 | 4,634 | 62.9 | 348,967 | 176,302 | 57 | 4 | 10 | 14.1 | |
| | Chicago & Eastern Ill..... | 1955 | 868 | 117,170 | 117,170 | 2,491 | 5,308 | 69.4 | 367,668 | 188,376 | 27 | .. | 3 | 10.0 |
| | 1954 | 868 | 120,796 | 120,796 | 2,762 | 4,934 | 65.8 | 351,974 | 176,897 | 25 | .. | 3 | 10.7 | |
| Southern Region | Elgin, Joliet & Eastern..... | 1955 | 236 | 84,927 | 85,814 | .. | 2,767 | 63.5 | 224,110 | 121,198 | 36 | 3 | 2 | 4.9 |
| | 1954 | 236 | 76,250 | 77,725 | .. | 2,422 | 63.6 | 192,369 | 103,290 | 33 | .. | .. | .. | |
| | Pennsylvania System..... | 1955 | 9,892 | 3,007,957 | 3,231,891 | 247,745 | 131,184 | 65.4 | 9,516,722 | 4,551,720 | 838 | 40 | 448 | 33.8 |
| | 1954 | 9,906 | 2,620,940 | 2,788,756 | 187,530 | 109,957 | 61.3 | 8,089,812 | 3,669,744 | 737 | 338 | 365 | 25.3 | |
| | Reading..... | 1955 | 1,303 | 323,782 | 328,570 | 11,113 | 12,392 | 65.1 | 977,374 | 519,231 | 158 | 3 | 28 | 14.8 |
| | 1954 | 1,304 | 286,894 | 290,534 | 10,278 | 10,766 | 59.7 | 853,263 | 425,320 | 148 | 27 | 15 | 7.9 | |
| | Western Maryland..... | 1955 | 846 | 159,376 | 165,308 | 8,895 | 6,122 | 63.2 | 510,800 | 286,904 | 37 | .. | .. | .. |
| | 1954 | 857 | 142,762 | 150,993 | 8,643 | 5,276 | 60.5 | 445,914 | 243,289 | 50 | 29 | 1 | 1.3 | |
| | Chesapeake & Ohio..... | 1955 | 5,046 | 1,494,045 | 1,517,529 | 44,991 | 66,487 | 57.6 | 5,738,668 | 3,232,471 | 385 | 19 | 184 | 31.3 |
| | 1954 | 5,032 | 1,204,964 | 1,226,346 | 29,656 | 50,695 | 57.2 | 4,246,423 | 2,337,819 | 313 | 81 | 175 | 30.8 | |
| Northwestern Region | Norfolk & Western | 1955 | 1,113 | 596,527 | 626,308 | 43,626 | 27,246 | 57.3 | 2,515,502 | 1,344,137 | 199 | 55 | 27 | 9.6 |
| | 1954 | 1,113 | 596,527 | 626,308 | 43,626 | 27,246 | 57.3 | 2,515,502 | 1,344,137 | 199 | 55 | 27 | 9.6 | |
| | Atlantic Coast Line..... | 1955 | 5,278 | 846,460 | 846,460 | 9,054 | 25,868 | 59.0 | 1,819,359 | 785,568 | 234 | .. | 7 | 2.9 |
| | 1954 | 5,341 | 822,418 | 822,418 | 8,884 | 24,434 | 58.0 | 1,705,235 | 711,499 | 239 | .. | 8 | 3.2 | |
| | Central of Georgia..... | 1955 | 1,731 | 192,755 | 192,780 | 1,719 | 7,636 | 69.2 | 523,461 | 256,191 | 77 | .. | 2 | 2.5 |
| | 1954 | 1,731 | 183,875 | 183,901 | 2,048 | 7,001 | 67.2 | 471,460 | 218,906 | 71 | .. | 2 | 2.7 | |
| | Gulf, Mobile & Ohio..... | 1955 | 2,717 | 262,369 | 262,369 | 127 | 14,573 | 70.7 | 967,615 | 458,879 | 87 | .. | .. | .. |
| | 1954 | 2,718 | 272,545 | 272,545 | 614 | 14,069 | 68.2 | 969,859 | 467,624 | 86 | .. | 3 | 3.4 | |
| | Illinois Central..... | 1955 | 6,531 | 1,199,906 | 1,202,651 | 35,806 | 50,205 | 63.2 | 3,606,805 | 1,660,729 | 423 | 52 | 169 | 26.2 |
| | 1954 | 6,537 | 1,216,432 | 1,218,008 | 39,468 | 45,732 | 61.4 | 3,297,400 | 1,469,879 | 492 | 95 | 85 | 12.6 | |
| Central Western Region | Louisville & Nashville | 1955 | 4,715 | 899,320 | 905,676 | 17,306 | 34,813 | 62.6 | 2,659,220 | 1,367,585 | 181 | 27 | 21 | 9.2 |
| | 1954 | 4,722 | 853,301 | 878,329 | 17,467 | 30,461 | 61.1 | 2,270,145 | 1,106,636 | 231 | 66 | 13 | 4.2 | |
| | Naah, Chatt. & St. Louis | 1955 | 1,043 | 161,991 | 165,456 | 3,758 | 5,397 | 70.9 | 354,671 | 167,979 | 51 | .. | 2 | 3.4 |
| | 1954 | 1,032 | 165,222 | 168,736 | 3,392 | 5,543 | 67.0 | 359,331 | 159,482 | 48 | .. | 5 | 9.4 | |
| | Seaboard Air Line..... | 1955 | 4,053 | 624,994 | 624,994 | 2,188 | 24,060 | 62.8 | 1,696,724 | 825,418 | 115 | .. | 12 | 8.1 |
| | 1954 | 4,067 | 630,871 | 630,871 | 2,137 | 23,693 | 61.5 | 1,688,822 | 712,632 | 143 | .. | 11 | 7.1 | |
| | Southern..... | 1955 | 6,264 | 913,761 | 913,831 | 13,247 | 41,499 | 67.2 | 2,710,154 | 1,237,186 | 272 | .. | 3 | 1.1 |
| | 1954 | 6,262 | 899,999 | 900,114 | 11,900 | 36,102 | 64.9 | 2,404,069 | 1,069,973 | 276 | .. | 3 | 1.1 | |
| | Chicago & North Western | 1955 | 7,848 | 722,497 | 723,595 | 9,516 | 32,115 | 66.7 | 2,215,549 | 1,011,623 | 139 | 13 | 43 | 22.1 |
| | 1954 | 7,950 | 693,510 | 695,435 | 10,437 | 28,651 | 62.6 | 2,054,855 | 888,181 | 176 | 44 | 66 | 23.1 | |
| Northwestern Region | Chicago Great Western..... | 1955 | 1,437 | 134,335 | 134,335 | 170 | 7,777 | 69.0 | 504,974 | 223,663 | 29 | .. | 4 | 12.1 |
| | 1954 | 1,437 | 131,207 | 131,207 | 170 | 6,859 | 66.4 | 470,366 | 211,688 | 31 | .. | 2 | 6.1 | |
| | Chic., Milw., St. P. & Pac..... | 1955 | 10,633 | 981,648 | 999,642 | 19,097 | 43,029 | 65.1 | 2,955,658 | 1,328,339 | 265 | 48 | 20 | 6.0 |
| | 1954 | 10,633 | 938,439 | 954,338 | 22,418 | 38,731 | 64.0 | 2,669,996 | 1,182,777 | 310 | 71 | 48 | 11.2 | |
| | Chic., St. P., Minn. & Omaha | 1955 | 1,606 | 159,210 | 160,303 | 4,018 | 5,380 | 67.7 | 369,490 | 162,399 | 59 | 1 | 15 | 20.3 |
| | 1954 | 1,606 | 155,220 | 156,318 | 4,730 | 5,009 | 65.8 | 354,405 | 158,118 | 60 | 1 | 21 | 25.6 | |
| | Duluth, Missabe & Iron Range..... | 1955 | 569 | 174,525 | 175,477 | 1,737 | 8,199 | 51.9 | 878,317 | 534,843 | 61 | 2 | 4 | 6.0 |
| | 1954 | 566 | 149,788 | 150,515 | 962 | 7,178 | 51.0 | 774,451 | 461,298 | 68 | 2 | 4 | 5.4 | |
| | Great Northern..... | 1955 | 8,270 | 1,171,836 | 1,178,335 | 38,629 | 49,133 | 65.8 | 3,675,965 | 1,840,979 | 245 | 111 | 45 | 11.2 |
| | 1954 | 8,294 | 1,090,646 | 1,095,256 | 28,088 | 45,961 | 62.6 | 3,592,748 | 1,789,176 | 257 | 166 | 42 | 9.0 | |
| Central Western Region | Minneapolis, St. P. & S. Ste. M..... | 1955 | 4,171 | 415,992 | 418,176 | 2,522 | 14,469 | 68.1 | 977,217 | 469,408 | 79 | 11 | 5 | 5.3 |
| | 1954 | 4,169 | 387,751 | 390,483 | 3,528 | 12,884 | 66.9 | 854,673 | 404,037 | 103 | 2 | 13 | 11.0 | |
| | Northern Pacific..... | 1955 | 6,570 | 826,791 | 846,949 | 21,158 | 35,313 | 68.4 | 2,394,159 | 1,111,279 | 300 | 28 | 56 | 14.6 |
| | 1954 | 6,570 | 825,307 | 849,056 | 33,964 | 31,832 | 62.2 | 2,326,792 | 1,030,216 | 308 | 28 | 56 | 14.3 | |
| | Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)..... | 1955 | 13,098 | 2,726,449 | 2,859,050 | 90,573 | 126,266 | 63.9 | 8,610,641 | 3,089,520 | 590 | 12 | 40 | 6.2 |
| | 1954 | 13,076 | 2,304,379 | 2,406,976 | 69,105 | 103,334 | 65.2 | 7,046,590 | 2,625,867 | 551 | 112 | 31 | 4.5 | |
| | Chic., Burl. & Quincy..... | 1955 | 8,773 | 1,063,312 | 1,059,691 | 33,303 | 46,596 | 70.2 | 2,977,834 | 1,340,263 | 204 | 61 | 27 | 8.8 |
| | 1954 | 8,824 | 1,051,494 | 1,047,504 | 28,085 | 42,031 | 67.8 | 2,760,931 | 1,233,930 | 239 | 70 | 30 | 8.8 | |
| | Chic., Rock I. & Pac..... | 1955 | 7,904 | 933,675 | 930,739 | 1,649 | 37,024 | 60.5 | 2,712,642 | 1,094,311 | 172 | .. | 3 | 1.7 |
| | 1954 | 7,861 | 967,699 | 978,223 | 3,052 | 36,747 | 59.2 | 2,716,941 | 1,068,992 | 175 | .. | 8 | 4.4 | |
| Southwestern Region | | | | | | | | | | | | | | |

For the Month of June 1955 Compared with June 1954

| Region, Road and Year | Freight cars on line | | | Per Cent B.O. | G.t.m. per train-hr. | | Net ton-mi. per train-mi. | Net ton-mi. per car-mi. | Net ton-mi. per car-day | Cur-miles per car-day | Net daily ton-mi. per road-mi. | Train-miles per train-hour | Miles per loco. per day |
|---|----------------------|---------|---------|---------------|-------------------------|-------------------------|---------------------------|-------------------------|-------------------------|-----------------------|--------------------------------|----------------------------|-------------------------|
| | Home | Foreign | Total | | excl. locos and tenders | incl. locos and tenders | | | | | | | |
| New England Region | | | | | | | | | | | | | |
| Boston & Maine..... | 1955 2,256 | 9,882 | 12,138 | 3.3 | 37,195 | 2,490 | 1,022 | 25.6 | 721 | 41.0 | 5,372 | 15.0 | 135.0 |
| 1954 2,971 | 6,890 | 9,861 | 4.4 | 36,865 | 2,263 | 891 | 25.8 | 736 | 43.9 | 4,455 | 16.3 | 123.3 | |
| N. Y., N. H. & Hfd..... | 1955 1,946 | 20,628 | 22,574 | 1.5 | 41,783 | 2,620 | 1,078 | 24.5 | 520 | 30.0 | 6,020 | 15.9 | 139.0 |
| 1954 3,128 | 12,141 | 15,269 | 3.5 | 41,928 | 2,559 | 1,020 | 25.0 | 617 | 37.5 | 5,417 | 16.4 | 119.1 | |
| Great Lakes Region | | | | | | | | | | | | | |
| Delaware & Hudson..... | 1955 2,998 | 5,688 | 8,686 | 3.6 | 64,340 | 3,562 | 1,851 | 34.6 | 1,285 | 51.8 | 13,991 | 18.1 | 172.8 |
| 1954 6,884 | 3,697 | 10,581 | 5.9 | 58,433 | 3,218 | 1,611 | 34.7 | 894 | 39.2 | 12,235 | 18.3 | 152.0 | |
| Del. Lack. & Western..... | 1955 4,912 | 9,969 | 14,881 | 2.8 | 48,809 | 2,875 | 1,251 | 27.9 | 771 | 39.6 | 11,959 | 17.3 | 186.7 |
| 1954 8,459 | 7,759 | 16,218 | 5.0 | 49,184 | 2,975 | 1,263 | 28.3 | 618 | 33.3 | 10,632 | 16.9 | 166.3 | |
| Erie..... | 1955 7,834 | 17,771 | 25,605 | 3.7 | 65,021 | 3,434 | 1,340 | 24.2 | 1,013 | 61.1 | 11,702 | 19.1 | 140.5 |
| 1954 12,058 | 15,602 | 27,660 | 5.2 | 64,721 | 3,491 | 1,341 | 24.6 | 858 | 52.6 | 10,709 | 18.7 | 125.3 | |
| Grand Trunk Western..... | 1955 3,986 | 9,719 | 13,705 | 9.7 | 51,895 | 2,468 | 957 | 27.3 | 571 | 34.8 | 8,228 | 21.3 | 116.8 |
| 1954 5,041 | 7,828 | 12,869 | 4.9 | 49,955 | 2,395 | 931 | 27.9 | 573 | 35.2 | 7,787 | 21.0 | 118.0 | |
| Lehigh Valley..... | 1955 8,531 | 8,276 | 16,807 | 3.5 | 69,742 | 3,449 | 1,626 | 32.2 | 688 | 31.6 | 10,182 | 20.6 | 240.1 |
| 1954 10,092 | 6,424 | 16,516 | 5.8 | 68,081 | 3,451 | 1,569 | 31.9 | 638 | 31.4 | 9,033 | 20.0 | 223.5 | |
| New York Central..... | 1955 56,246 | 93,250 | 149,496 | 5.2 | 50,445 | 2,927 | 1,318 | 32.3 | 736 | 36.9 | 10,460 | 17.5 | 141.7 |
| 1954 85,479 | 73,063 | 158,542 | 11.3 | 49,955 | 2,875 | 1,243 | 31.2 | 568 | 30.6 | 8,575 | 17.7 | 101.9 | |
| New York, Chic. & St. L..... | 1955 6,498 | 18,007 | 24,505 | 7.3 | 51,648 | 2,951 | 1,334 | 31.2 | 1,369 | 66.0 | 15,012 | 17.9 | 138.7 |
| 1954 10,289 | 13,455 | 23,744 | 7.6 | 51,716 | 2,846 | 1,206 | 29.8 | 1,060 | 56.3 | 11,828 | 18.5 | 102.4 | |
| Pitts. & Lake Erie..... | 1955 3,159 | 8,587 | 11,746 | 4.2 | 61,814 | 4,032 | 2,590 | 55.6 | 499 | 12.6 | 25,813 | 15.5 | 116.9 |
| 1954 11,028 | 6,609 | 17,637 | 6.4 | 57,793 | 3,904 | 2,371 | 53.1 | 730 | 6.8 | 18,305 | 14.8 | 82.7 | |
| Wabash..... | 1955 8,069 | 10,472 | 18,541 | 6.7 | 61,793 | 3,904 | 2,371 | 53.1 | 1,075 | 66.8 | 18,443 | 21.8 | 189.5 |
| 1954 9,974 | 10,251 | 20,225 | 6.6 | 64,182 | 2,802 | 1,036 | 23.9 | 867 | 56.3 | 7,285 | 23.0 | 175.4 | |
| Central Eastern Region | | | | | | | | | | | | | |
| Baltimore & Ohio..... | 1955 45,935 | 44,785 | 90,720 | 12.9 | 49,726 | 3,251 | 1,599 | 38.2 | 879 | 36.1 | 13,715 | 15.5 | 122.5 |
| 1954 62,693 | 37,614 | 100,307 | 12.5 | 48,809 | 3,158 | 1,510 | 37.1 | 707 | 31.4 | 11,519 | 15.7 | 95.1 | |
| Bessemer & Lake Erie..... | 1955 4,435 | 1,793 | 6,228 | 10.0 | 105,417 | 6,942 | 4,455 | 79.1 | 1,552 | 34.3 | 41,740 | 15.6 | 138.6 |
| 1954 7,145 | 854 | 7,999 | 10.3 | 104,121 | 6,929 | 4,561 | 75.7 | 998 | 20.6 | 38,226 | 15.4 | 145.6 | |
| Central RR Co. of New Jersey..... | 1955 3,351 | 10,452 | 13,803 | 6.6 | 42,396 | 3,050 | 1,593 | 38.6 | 451 | 17.5 | 10,304 | 14.4 | 90.4 |
| 1954 6,610 | 9,324 | 15,934 | 10.2 | 40,404 | 2,961 | 1,496 | 38.0 | 387 | 16.2 | 9,587 | 14.1 | 77.6 | |
| Chicago & Eastern Ill..... | 1955 2,566 | 3,942 | 6,508 | 4.7 | 50,881 | 3,146 | 1,612 | 35.5 | 997 | 40.5 | 7,234 | 16.2 | 132.7 |
| 1954 4,425 | 3,634 | 7,059 | 4.9 | 49,448 | 2,929 | 1,472 | 35.9 | 860 | 36.8 | 6,793 | 17.3 | 151.8 | |
| Elgin, Joliet & Eastern..... | 1955 7,015 | 9,368 | 16,383 | 5.3 | 21,634 | 2,760 | 1,493 | 43.8 | 248 | 8.9 | 17,118 | 8.2 | 92.1 |
| 1954 7,761 | 6,699 | 14,460 | 7.5 | 23,055 | 2,623 | 1,409 | 42.6 | 241 | 8.9 | 14,589 | 9.1 | 82.9 | |
| Pennsylvania System..... | 1955 108,851 | 92,206 | 204,057 | 13.3 | 54,099 | 3,256 | 1,557 | 34.7 | 740 | 32.6 | 15,338 | 17.1 | 95.9 |
| 1954 116,491 | 88,258 | 204,749 | 11.6 | 55,377 | 3,178 | 1,442 | 33.4 | 598 | 29.2 | 12,349 | 17.9 | 75.3 | |
| Reading..... | 1955 12,759 | 16,300 | 29,059 | 5.6 | 46,383 | 3,019 | 1,604 | 41.9 | 588 | 21.5 | 13,283 | 15.4 | 73.4 |
| 1954 20,192 | 11,259 | 31,451 | 8.0 | 43,271 | 2,975 | 1,483 | 39.5 | 436 | 18.5 | 10,872 | 14.5 | 60.9 | |
| Western Maryland..... | 1955 4,318 | 3,283 | 7,601 | 4.5 | 47,867 | 3,251 | 1,826 | 46.9 | 1,219 | 51.9 | 11,304 | 14.7 | 173.4 |
| 1954 6,977 | 2,131 | 9,108 | 4.5 | 44,717 | 3,189 | 1,740 | 46.1 | 812 | 29.1 | 9,463 | 14.3 | 73.2 | |
| Potomac Region | | | | | | | | | | | | | |
| Chesapeake & Ohio..... | 1955 50,225 | 36,527 | 86,752 | 2.2 | 72,131 | 3,867 | 2,178 | 48.6 | 1,258 | 44.9 | 21,353 | 18.8 | 95.5 |
| 1954 58,779 | 22,808 | 81,587 | 3.9 | 66,312 | 3,545 | 1,951 | 46.1 | 964 | 36.6 | 15,486 | 18.9 | 78.4 | |
| Norfolk & Western..... | 1955 32,876 | 8,423 | 41,299 | 1.8 | 80,279 | 4,712 | 2,571 | 50.4 | 1,408 | 47.5 | 26,810 | 17.5 | 105.5 |
| 1954 40,118 | 6,190 | 46,308 | 1.9 | 74,406 | 4,320 | 2,308 | 49.3 | 951 | 33.6 | 21,204 | 17.6 | 87.4 | |
| Southern Region | | | | | | | | | | | | | |
| Atlantic Coast Line..... | 1955 18,232 | 13,961 | 32,193 | 4.3 | 40,401 | 2,162 | 933 | 30.4 | 759 | 42.4 | 4,961 | 18.8 | 129.4 |
| 1954 20,453 | 12,232 | 32,685 | 2.7 | 37,820 | 2,088 | 871 | 29.1 | 705 | 41.7 | 4,440 | 18.2 | 123.5 | |
| Central of Georgia..... | 1955 2,833 | 6,178 | 9,011 | 4.3 | 47,914 | 2,724 | 1,333 | 33.6 | 925 | 39.8 | 4,933 | 17.6 | 92.6 |
| 1954 3,599 | 5,005 | 8,604 | 4.8 | 45,715 | 2,580 | 1,198 | 31.3 | 871 | 41.5 | 4,215 | 17.8 | 95.0 | |
| Gulf, Mobile & Ohio..... | 1955 4,910 | 9,528 | 14,438 | 3.1 | 71,232 | 3,691 | 1,750 | 31.5 | 1,061 | 47.7 | 5,630 | 19.3 | 107.2 |
| 1954 6,165 | 8,555 | 14,720 | 3.9 | 67,779 | 3,565 | 1,719 | 33.2 | 1,073 | 47.4 | 5,735 | 19.6 | 110.2 | |
| Illinois Central..... | 1955 25,379 | 25,388 | 50,767 | 2.3 | 51,153 | 3,047 | 1,403 | 33.1 | 1,090 | 52.2 | 8,476 | 17.0 | 69.5 |
| 1954 29,736 | 21,090 | 50,826 | 3.8 | 46,651 | 2,747 | 1,224 | 32.1 | 967 | 49.0 | 7,495 | 17.2 | 68.6 | |
| Louisville & Nashville..... | 1955 28,392 | 14,860 | 43,252 | 5.1 | 50,040 | 2,965 | 1,525 | 39.3 | 1,062 | 43.2 | 9,668 | 16.9 | 144.7 |
| 1954 38,306 | 11,968 | 50,274 | 3.1 | 46,784 | 2,668 | 1,300 | 36.3 | 720 | 32.5 | 7,812 | 17.6 | 100.7 | |
| Naah., Chatt. & St. Louis..... | 1955 3,927 | 3,358 | 7,285 | 4.6 | 41,918 | 2,194 | 1,039 | 31.1 | 789 | 35.8 | 5,368 | 19.1 | 114.3 |
| 1954 3,843 | 3,163 | 7,006 | 4.1 | 41,412 | 2,176 | 960 | 28.6 | 750 | 39.6 | 5,119 | 19.0 | 116.4 | |
| Seaboard Air Line..... | 1955 12,006 | 13,270 | 25,276 | 2.8 | 51,179 | 2,757 | 1,179 | 30.2 | 904 | 47.8 | 5,966 | 18.9 | 165.7 |
| 1954 14,132 | 10,849 | 24,981 | 2.3 | 49,625 | 2,722 | 1,149 | 30.1 | 912 | 49.3 | 5,841 | 18.5 | 160.2 | |
| Southern..... | 1955 17,301 | 23,025 | 40,326 | 3.9 | 51,284 | 2,977 | 1,359 | 29.8 | 1,029 | 51.4 | 6,584 | 17.3 | 121.9 |
| 1954 19,959 | 23,058 | 43,017 | 3.9 | 47,912 | 2,680 | 1,193 | 29.6 | 831 | 43.2 | 5,696 | 17.9 | 120.9 | |
| Northwestern Region | | | | | | | | | | | | | |
| Chicago & North Western..... | 1955 17,397 | 30,407 | 47,804 | 4.5 | 54,896 | 3,120 | 1,424 | 31.5 | 711 | 33.8 | 4,297 | 17.9 | 137.9 |
| 1954 21,915 | 28,242 | 50,157 | 5.6 | 49,953 | 3,023 | 1,306 | 31.0 | 610 | 31.4 | 3,771 | 16.9 | 90.7 | |
| Chicago Great Western..... | 1955 1,288 | 4,893 | 6,181 | 3.1 | 72,016 | 3,766 | 1,668 | 28.8 | 1,179 | 59.4 | 5,188 | 19.2 | 141.8 |
| 1954 2,060 | 4,045 | 6,105 | 3.3 | 69,985 | 3,589 | 1,615 | 30.9 | 1,192 | 58.2 | 4,910 | 19.5 | 138.0 | |
| Chic., Milw. & St. P. & Pac..... | 1955 30,380 | 31,769 | 62,149 | 6.2 | 56,387 | 3,021 | 1,358 | 30.6 | 1,164 | 35.1 | 4,164 | 18.1 | 109.9 |
| 1954 37,847 | 28,419 | 66,266 | 7.0 | 51,729 | 2,856 | 1,265 | 30.5 | 598 | 30.6 | 3,708 | 18.2 | 83.4 | |
| Chic., St. P., Minn. & Omaha..... | 1955 1,198 | 8,536 | 9,734 | 4.1 | 42,695 | 2,338 | 1,028 | 30.2 | 583 | 28.5 | 3,371 | 14.1 | 82.5 |
| 1954 1,115 | 7,531 | 8,646 | 4.8 | 41,388 | 2,306 | 1,029 | 31.6 | 639 | 30.8 | 3,282 | 13.7 | 67.9 | |
| Duluth, Missabe & Iron Range..... | 1955 13,663 | 901 | 14,564 | 1.6 | 87,508 | 5,395 | 3,286 | 65.2 | 1,224 | 36.2 | 31,332 | 17.4 | 103.1 |
| 1954 14,374 | 588 | 14,962 | 1.8 | 88,671 | 5,457 | 3,250 | 64.3 | 1,026 | 31.3 | 27,167 | 17.1 | 79.3 | |
| Great Northern..... | 1955 20,788 | 20,934 | 41,722 | 3.2 | 57,295 | 3,185 | 1,595 | 37.5 | 1,507 | 61.1 | 7,420 | 18.3 | 108.1 |
| 1954 25,970 | 19,907 | 45,877 | 2.9 | 55,581 | 3,341 | 1,664 | 38.9 | 1,287 | 52.8 | 7,191 | 16.9 | 87.7 | |
| Minneapolis, St. P. & S. Ste. M..... | 1955 7,753 | 6,694 | 14,447 | 6.4 | 44,242 | 2,215 | 1,047 | 31.4 | 930 | 44.3 | 3,230 | 20.1 | 120.4 |
| 1954 7,058 | 8,322 | 15,380 | 2.2 | 55,581 | 3,341 | 1,664 | 38.9 | 1,287 | 52.8 | 7,191 | 16.9 | 87.7 | |
| Northern Pacific..... | 1955 18,177 | 18,708 | 36,885 | 5.3 | 54,580 | 2,910 | 1,351 | 31.5 | 1,021 | 47.5 | 5,638 | 18.1 | 84.2 |
| 1954 21,950 | 15,869 | 37,819 | 5.4 | 53,317 | 2,833 | 1,254 | 32.4 | 928 | 46.1 | 5,227 | 18.9 | 80.7 | |
| Central Western Region | | | | | | | | | | | | | |
| Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)..... | 1955 55,418 | 38,837 | 94,255 | 3.6 | 70,230 | 3,174 | 1,139 | 24.5 | 1,122 | 71.7 | 7,863 | 22.2 | 164.1 |
| 1954 57,010 | 35,883 | 92,893 | 3.2 | 68,886 | 3,070 | 1,144 | 25.4 | 951 | 57.4 | 6,694 | 22.5 | 126.5 | |
| Chic., Burl. & Quincy..... | 1955 20,635 | 22,730 | 43,365 | 3.4 | 57,301 | 2,806 | 1,263 | 28.8 | 1,027 | 50.8 | 5,092 | 20.5 | 132.1 |
| 1954 22,055 | 22,827 | 44,882 | 3.2 | 54,277 | 2,632 | 1,176 | 29.4 | 955 | 48.0 | 4,661 | 20.7 | 113.2 | |
| Chic., Rock I. & Pac..... | 1955 12,721 | 21,494 | 34,215 | 4.4 | 56,636 | 2,914 | 1,176 | 29.6 | 1,088 | 60.8 | 4,615 | 19.5 | 187.1 |
| 1954 13,494 | 21,847 | | | | | | | | | | | | |

Good news for New York City subway commuters... 200 new cars built by ACF, seated by Heywood-Wakefield



As a part of its modernization and improvement program, the New York City Transit Authority has recently purchased 200 new cars from ACF Industries Incorporated. For over half a century, Heywood seating has proven itself on this, the world's largest and busiest subway.

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MONON PRESIDENT Warren Brown congratulates first-prize winner Alan M. White, who holds his \$500 check.



W. G. SCOTT (left) accepts from James G. Lyne, editor of *Railway Age*, his second prize of \$250.

Prize Winners in Essay Contest on . . .

"Traditional Differentials"

. . . in Railroad Rate-Making

The first prize of \$500, offered by Warren W. Brown, president of the Monon, for the best essay on the subject of "traditional differentials" in railroad rate-making—in the contest conducted by *Railway Age* (see issue of January 17, page 15 for particulars)—has been awarded by the judges to Alan M. White of the Railroads' Tariff Research Group, in Washington, D. C. The second prize of \$250, offered by *Railway Age*, has been awarded to W. G. Scott, transportation economist for the Railway Association of Canada in Montreal.

The judges of the contest were Interstate Commerce Commissioner Richard F. Mitchell; J. R. Staley, vice-president, Quaker Oats Company, and Mr. Brown. The contest was announced in *Railway Age* of January 17 and the closing date was the end of March. The purpose was to stimulate thought and expression on the problem confronting the railroads, from the frequent demand made upon them that long-established relationships between different freight rates be maintained, despite the competition which the retention of such relationships makes ineffective or impossible. The prize-winning papers shed a great deal of light on this important industry problem. Mr. White's paper will be published in *Railway Age* of September 19 and Mr. Scott's in a subsequent issue. It is also planned to publish these prize papers, together with 8 or 10 additional ones, selected by the judges, in pamphlet form—as was done in the case of the "Inherent Advantages" contest conducted by *Railway Age* and Mr. Brown in 1954. The "Inherent Advantages" pamphlet attained a distribution of almost 10,000.

Prize-winner Alan M. White is 44 years of age and is a native of Springfield, Ill. After three years of study at the University of Chicago, he entered railroad work as a stenographer and clerk, first with the Illinois Central



Richard F. Mitchell



J. R. Staley

and later with the Pennsylvania—of which latter company he became chief rate clerk at Chicago, and thereafter served as rate analyst in the office of traffic vice-president at Philadelphia—until his present assignment with the Railroads' Tariff Research Group.

Mr. Scott was born at Calgary, Alta., on January 5, 1915. He was graduated in arts (1934) and in law (1936) from the Alberta University at Edmonton. In 1938 he received an M.A. in transportation economics from the University of Toronto. After five years in the Air Force he entered the service of the Bureau of Transport Economics of the Canadian government at Ottawa. In 1948 he became director of traffic analysis for Trans-Canada Airlines. In 1951 Mr. Scott joined the Railway Association of Canada as its transportation economist.

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See NMB Journal Box Lubricating System operating in actuated truck sides which duplicate car speed, lateral, frontal and slewing motion.

See full-size transparent working models of NMB Lubricating System clearly showing circulating oil — which reduces bearing end wear, provides 50° cooler bearing operation.

SEPTEMBER 11, 12, 13, 14
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Acceptance of the service-proved NMB System is snowballing! Prove to yourself, on your line, that the NMB System gives these vital benefits!

- PRACTICALLY ELIMINATES BRASS END WEAR
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- REDUCES OIL CONSUMPTION 90%
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- ELIMINATES VIRTUALLY ALL ACCIDENTS CAUSED BY HOT BOXES

**Remember! NMB Lubricating System requires
NO MODIFICATION OF JOURNAL BOXES!**

MAKE THIS SIMPLE TEST

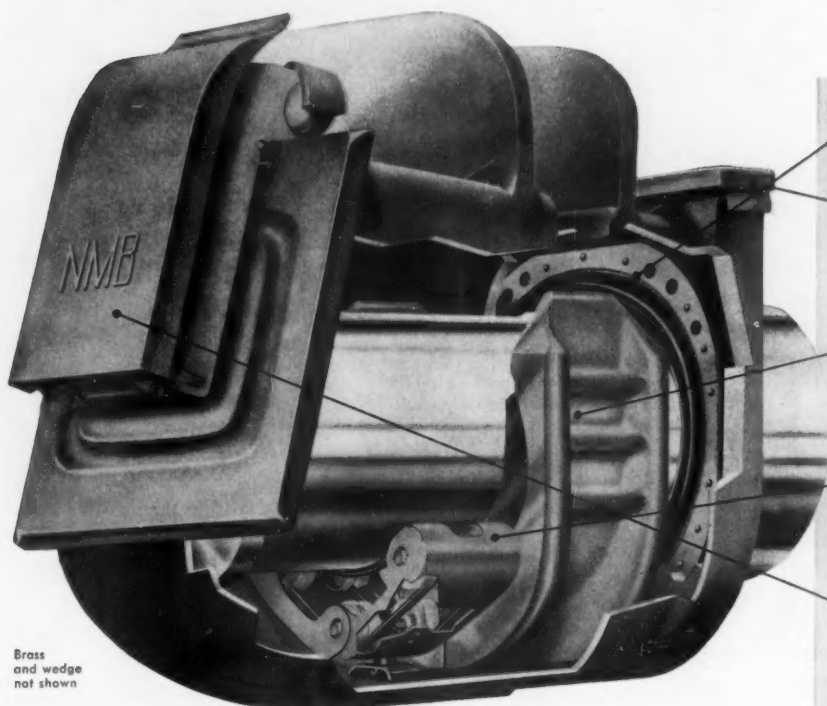
Equip 10 solid bearing cars with the NMB System. Net costs vary, according to journal size, from \$232. to \$267. per car. Operate under all possible conditions. Bearing end wear will be cut to an unbelievable 0.0006" per 1,000 car miles. Inspection will be needed only once a month. Oil consumption will drop to about 1 oz. per 1,000 journal box miles. Hot boxes will be virtually eliminated!

These predictions are based on actual experience in over 9,000,000 journal box miles of operation by major Class I railroads. This same experience shows cost of the NMB System can be completely amortized in 18 months, and thereafter savings of \$6.88 per 1,000 car miles are attainable.



NMB Lubricating System uses "long" solid bearings; is quickly installed without journal box alteration

A.A.R. APPROVED FOR INTERCHANGE SERVICE ON 10,000 CARS



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5 PRINCIPAL PARTS

A. OIL SEAL. Keeps oil in; dirt, water, brine and snow out.

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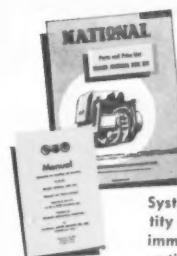
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Questions and Answers FOR THE TRANSPORTATION DEPARTMENT

Is a receiver entitled to demurrage relief for thawing coal when thawing begins after expiration of free time?

Yes. Relief is proper when lading freezes.

At 8 a.m. Thursday, March 3, four cars of coal were placed on a receiver's trestle for unloading. The coal was frozen, so that it was not until Friday, March 11, that the last car was released. The consignee made a written claim to carrier on all four cars, under provisions of Rule 8, Section A, Par. 2, and designated the days used in thawing lading as follows:

Car 1—March 4 and 5, released March 8;
Car 2—March 7 and 8, released March 9;
Car 3—March 9, released March 10;
Car 4—March 10, released March 11.
Is the consignee entitled to relief for

each day designated as a day used for thawing lading even though such day falls after expiration of free time, or on day not used in computing charges, i.e., Saturday and Sunday?

"Yes. He may secure allowance for each day used in thawing lading, not to exceed a maximum of two days (7 a.m. to 7 p.m.) regardless of whether the days on which heat is applied are before the free time starts, after expiration of free time or on days not charged for."—*Eastern Association of Car Service Officers.*

Watch for another car service "quiz" next month. For the date watch the September 26 column.—*G.C.R.*

Is the switching road entitled to a switching reclaim when its revenues for the service comes from a division of the through freight rate?

No. But in the past it could have reclaimed.

Company coal for Road A is loaded at a mine served by Road B within the switching district of the junction point where the coal is delivered to Road A, but Road B's revenue is determined through a division of the through freight rate, and is so published in Road B's division sheet. Is Road B entitled to a switching reclaim (under Rule 5) on these cars?

"No. Road B is not entitled to a

switching reclaim inasmuch as the cars are not handled within a switching district and at a switching charge. Switching reclaims were once allowed on this movement, but that was when cars were handled at a per car charge, construed to be a 'switching charge.' Subsequently, the movement was placed on a division-of-the-through-rate basis."—*Eastern Association of Car Service Officers.*

Is there an approved or correct way to repeat car numbers?

Apparently not

We ran this question, and several answers to it, in our issue of August 1. Most of the respondents favored calling each digit separately: "seven-O-two, O-nine-four." Since we printed the answers we've received several comments from readers. Here are two of them.—*G.C.R.*

"I am certain that a uniform standard should be adopted by the personnel of all railroads.

"If proper analysis is made of any combination of digits, it will be readily seen that there is no more efficient or quicker way to call numbers than calling each digit separately, as '7-0-2-0-9-4' or '5-1-3-6-8' which covers the scope of numerals 1 to 0.

"To say that it is quicker to say twenty-nine than to say two nine, or that ninety-four is quicker than saying nine four is incorrect. The pronunciation of the digits separately cuts out one syllable."—*J. B. Robinson, Sr., trainmaster, Western Maryland, Cumberland, Md.*

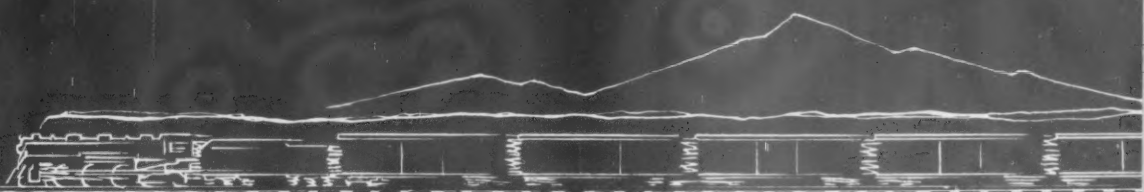
"I have had experience on the freight platform, and as a telegraph operator, dispatcher, chief dispatcher and general yardmaster, I feel that the system of speaking each number individually

is most desirable. Thus, car number 260270 should be spoken 'two-six-0, two-seven-0'. I agree that a slight pause between the third and fourth digits in a number of this kind is best. I also agree that a five-digit number should have a slight pause between the second and third digits. A four-digit car number can be spoken without pause, there not being too much length to bring on confusion: thus, car number 2602 would be spoken 'two-six-0-two'.

"I see no difference between using '0' or 'naught' as the spoken word for the 'nothing' digit. I think 'zero' is highly commendable. In the Navy, the number '0' is zero, the letter is 'oh' and there is certainly no confusion between the two. It would be hard, however, to convert railroad men to using 'zero' for the number '0'.

"Note that the number 260270, if spoken 'two-sixty, two-seventy' has a slight lowering of voice on the last emphasis; that is, on the 'ty' part of the spoken phrase. Try it and see if that is not so. Numbers such as 'sixty' or 'seventy' quite often can be mistaken for 'sixteen' and 'seventeen.'—*William G. Moore, assistant trainmaster, Baltimore & Ohio, Akron, Ohio.*

CONDUCTED BY G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in alternate weekly issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other departments will not be considered, unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, *Railway Age*, 30 Church Street, New York 7.



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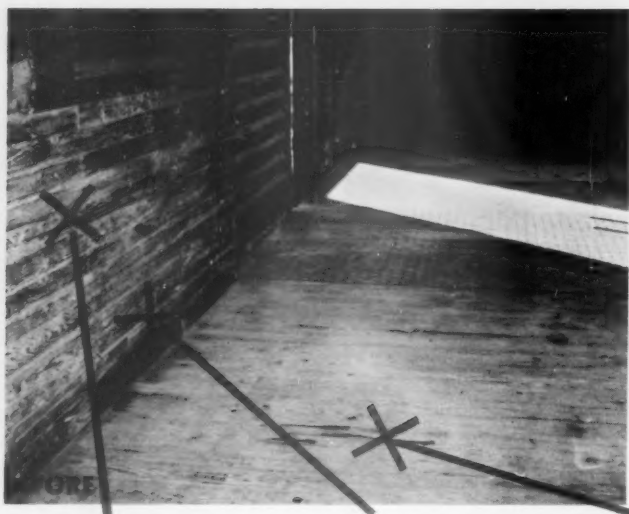
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No need to have freight cars out of service for a long period of time. Freight Liner covers broken lining and reduces the danger of torn sacks and packages in loading and in transit.

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Stains are no problem when cars are upgraded with Freight Liner Coating. It effectively covers oil and grease stains on floors or walls of cars, makes cars easier to maintain.

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Grease stains can be covered with Freight Liner Coating. Decks become usable for high grade lading when sealed by this tight, leak proof finish applied with brush or gun.



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Two men in your yard crew can upgrade as many as 30 bad-order cars a day with the Freight Liner System. It seals rough or broken walls and floors with a smooth, tough, abrasion-resistant, easy-to-clean, reinforced plastic coating that does not absorb odors. Cars are ready to roll with a Class A lading in 3 to 6 hours after application.

This new and proved way to solve the box car shortage has been used successfully by railroads for more than a year.

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Freight Liner Coating — formulated to produce

a plastic solution which can be brushed or sprayed on wood and metal surfaces with standard spray equipment.

A COMPLETE SERVICE...

The Freight Liner System includes all materials and equipment necessary to complete the job. These are available from stock for immediate shipment. It includes on-the-job instruction free of charge by a qualified service engineer who will set up the installation and instruct your men in its use.

Call your nearest Freight Liner representative today

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SYSTEM**

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Federal PRESENTS

To American Railroads...

The Industry's Most Comprehensive

MAIN LINE CONTROL

FOR RAILROAD RADIO SYSTEMS

Federal Main Line Control is a fast, flexible, and highly versatile system . . . engineered for the rugged communication requirements of dispatchers, wayside stations, trains and other mobile units.

The system operates over any train dispatching telephone circuit, including carrier. Half-second tone codes connect or disconnect wayside stations individually, using Federal's famous "Selecto-Call" tuned reed system.

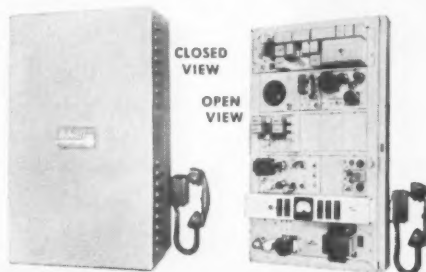
Train operators can signal the dispatcher over the regular dispatching circuits without disrupting conversation in progress. Dispatchers can answer radio calls without having to know which station called.

Dependable dispatcher-to-wayside intercom is provided through full-range compression amplifiers . . . insuring constant-volume speech under all conditions.

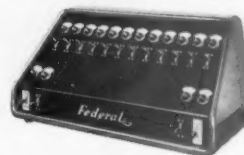
An outstanding optional feature is radio patch . . . providing communications *beyond* breaks in dispatching circuits.

Federal Main Line Control is a product of the worldwide telephone, carrier, remote control, microwave, and mobile radio experience of IT&T engineers. For complete data on your problems, write to Federal's Railroad Industry Sales Organization, Dept. P-847A.

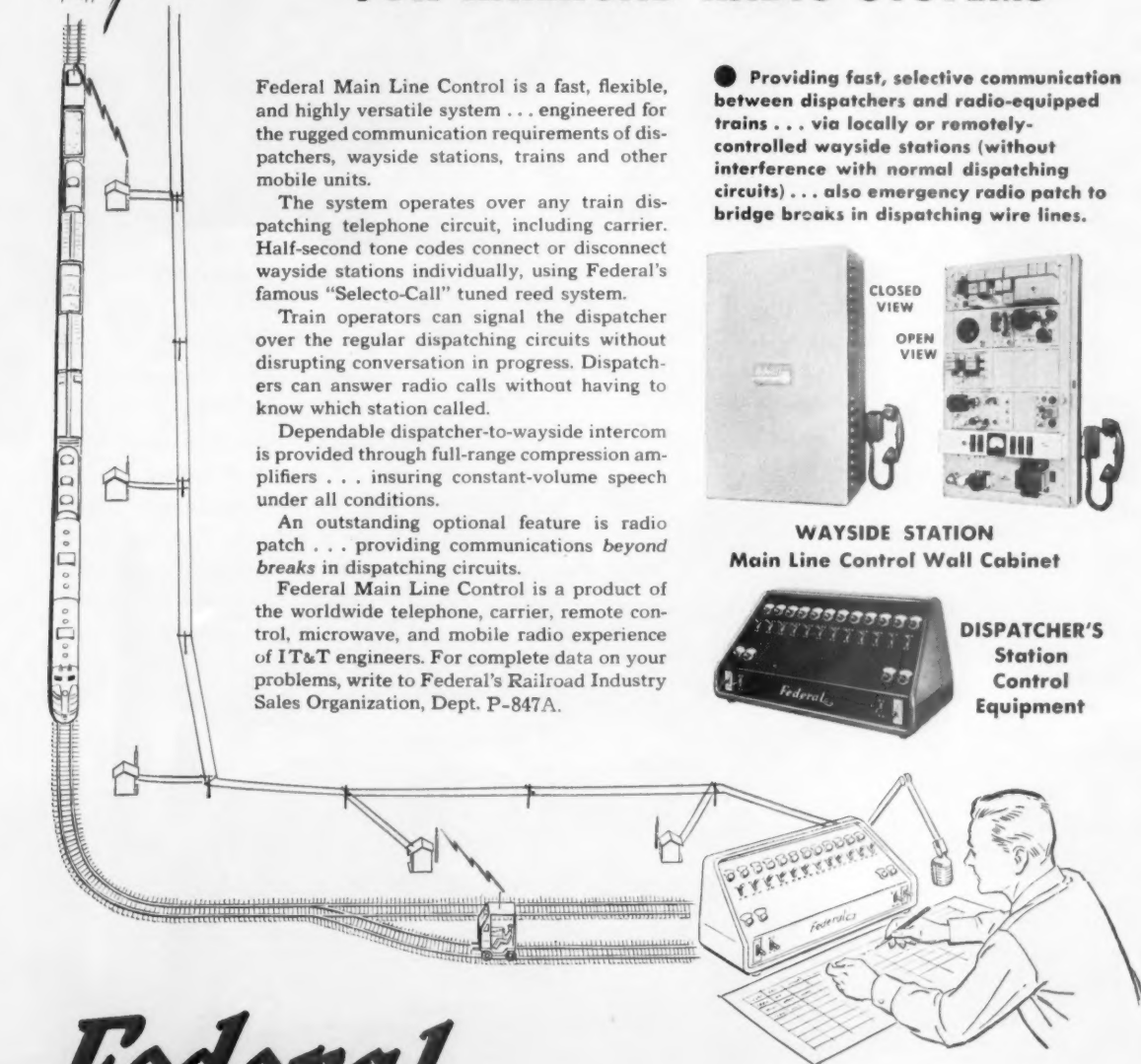
● Providing fast, selective communication between dispatchers and radio-equipped trains . . . via locally or remotely-controlled wayside stations (without interference with normal dispatching circuits) . . . also emergency radio patch to bridge breaks in dispatching wire lines.



WAYSIDE STATION
Main Line Control Wall Cabinet



DISPATCHER'S
Station
Control
Equipment



Federal Telephone and Radio Company
A Division of INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION
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In Canada: Standard Telephones and Cables Mfg. Co. (Canada) Ltd., Montreal, P. Q.
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Ice and infra-red rays



simulated the weather *on the*



GREAT AMERICAN RAILWAY *System*

Weather wages war on freight cars. In their lifetime most box cars encounter all of the extremes many times as they are shuttled back and forth over the 402,603 miles of track that make up the Great American Railway System.*

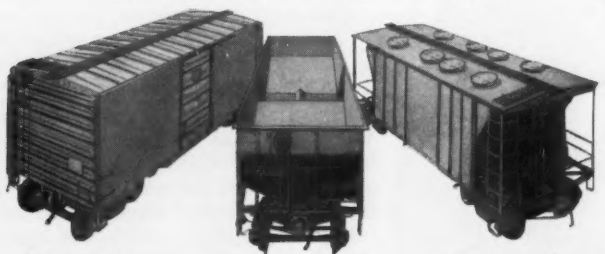
To know exactly how the PS-1 Box Car will perform in cold areas, a sample car is frequently impact tested, in the laboratory, with its welded draft lug and bolster assembly packed in dry ice. To assure superior performance wherever it goes, PS-1 materials and construction samples are proved in accelerated life tests under intermittent sun-like infra red rays and showers of corrosive salt sprays.

*A typical box car moves, in one year, on 39 different roads, including two or more trips on 24 roads. (A.A.R. data)

These and the many other laboratory findings are augmented by "on line" reports of Pullman-Standard's sales and service engineers. They study the success and failures of all types of construction on cars of all makes. Their reports contribute to the design and building of cars that will successfully meet today's and tomorrow's operating conditions and requirements.

Like the PS-1, the PS-2 Covered Hopper Car and the PS-3 Hopper Car are quality cars efficiently built to produce more ton miles of revenue at the lowest cost per year of service. If you are interested in the modern trend in freight car construction write for booklets describing these cars.

Built to serve best on the



PS-1 BOX CAR

PS-3 HOPPER CAR

PS-2 COVERED HOPPER

GREAT AMERICAN RAILWAY SYSTEM

YOUR NEEDS CREATE THE PULLMAN "STANDARD"

PULLMAN-STANDARD

CAR MANUFACTURING COMPANY

SUBSIDIARY OF PULLMAN INCORPORATED

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SKF

Traction Motor

pays off 4 ways for

1. BETTER BEARINGS — Today's SKF Traction Motor Bearing has multiplied bearing life in years and mileages. SKF's bearings can be run substantially longer between servicings. Big reason behind this accomplishment has been an extraordinary amount of Traction Motor Bearing design development and better manufacturing methods. Backing up superior quality is . . .

2. FIELD SERVICE — At SKF this means thirty years of the closest cooperation with Traction Motor builders and the railroads. The result is bearings that provide highest load carrying capacity. Improved maintenance has kept pace with improved bearings due to the adoption by many railroads of SKF's remarkable . . .

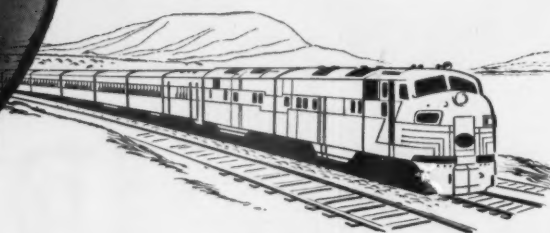
3. FACTORY INSPECTION SERVICE — Safety and Economy are the objectives of this SKF service, developed to keep traction motors on the job. Cost to the railroads is $\frac{1}{3}$ to $\frac{1}{2}$ the cost of new bearings.

Bearings returned to SKF are inspected:

- If cage and both rings pass rigid factory inspection, bearing is reassembled with new rollers, rewrapped and returned.
- If cage and outer ring pass inspection, but inner ring is no longer usable, the bearing is reassembled with new rollers and new inner ring.
- If outer ring is no longer usable, entire bearing is scrapped, and no charge is made for inspection.

4. FIELD CLINICS and now SKF SOUND SLIDE FILMS

— Thousands of railroad men have profited from attending SKF "Clinics", and, today, thousands more see SKF's full-color, 35 mm sound slide film, "How to Inspect Traction Motor Bearings." Result: Economies for the roads and better bearing performance and bearing service life.



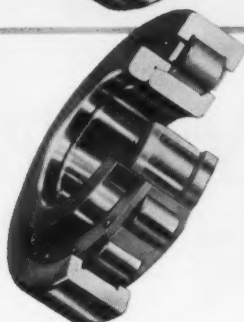
Bearing Program

railroads



The **SKF** Pinion End Roller Bearing

Cylindrical rollers of maximum length and diameter, accurately crowned, provide greatest possible capacity for the space allowed. Roller riding cage is easier to lubricate. This advanced design cage retains all previous **SKF** design improvements, provides quick disassembly and easy inspection of all bearing surfaces.



The **SKF** Commutator End Roller Bearing

Accurately stabilizes the armature and holds it in position in the proper position in the motor frame. Crowned rollers as in the pinion end bearing provide maximum capacity. Equipped with roller riding cage, making possible quick and easy disassembly for inspection of all bearing surfaces.

For Quick Service

Call Your **SKF** Authorized Traction Motor Bearing Distributor

Wherever your road operates, there's an authorized **SKF** Traction Motor Bearing Distributor who can help you with the best and most economical solution to bearing problems. **SKF**'s program of continuous instruction in the proper care and application of traction motor bearings keeps him fully informed. The **SKF** Traction Motor Bearings he supplies are the best you can buy. **SKF** Authorized Traction Motor

Bearing Distributors are strategically located to serve the railroads of the United States. They carry complete stocks of not only Traction Motor Bearings and generator bearings, but all other types of **SKF** anti-friction bearings as well. Ready and willing to serve you day and night, they can be depended upon to help you "KEEP 'EM ROLLING."

7491



SKF INDUSTRIES, INC., PHILADELPHIA 32, PA.,
manufacturers of **SKF** and HESS-BRIGHT® bearings.



LESS WEIGHT • LESS MAINTENANCE • BETTER APPEARANCE

*...prize package for you and
for your customers*

Stainless steel rail passenger cars give you in one package three big cost-cutting advantages—*less weight, less maintenance, better appearance.*

Stainless cars weigh less because a single stainless member often meets both structural and decorative requirements—thus cutting weight without sacrificing strength or safety.

Stainless cars require less maintenance because stainless—*painted or unpainted*—resists attack by dirt, fumes, weather and the strongest cleaning compounds.

As for appearance . . . just look at the newest, most luxurious cars on the rails today.

Next time you buy passenger cars, make it easier (and more profitable) for yourself—more attractive to your customers. *Make it stainless.*



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DETROIT • CHICAGO • PITTSBURGH • CLEVELAND

Producers of alloys, metals and chemicals

3 years to go...

WHEN JOURNALS ARE PACKED FOR *PROVEN* HOT-BOX PREVENTION

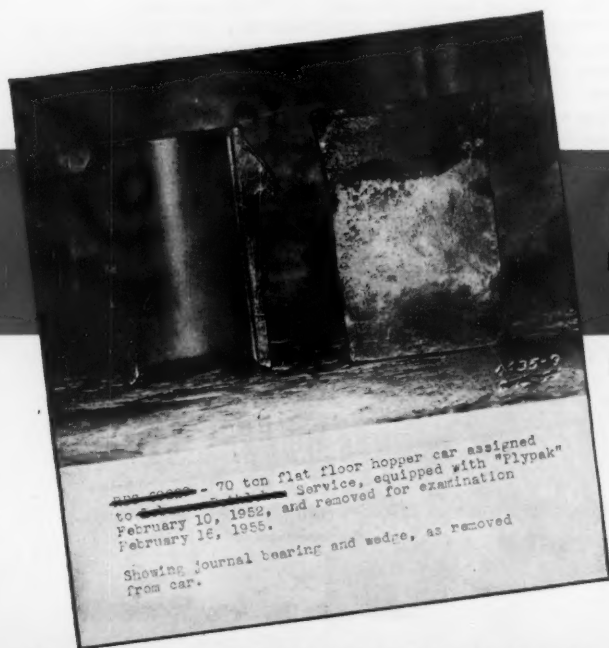
(A.A.R. approves, on request,
36 months repack period, where
PLYPAK waste retainers are applied)

FROM AN OFFICIAL RAILROAD REPORT
"Upon completion of this 36 months test, the PLYPAKS,
bearings, wedges and journals were in excellent condition."

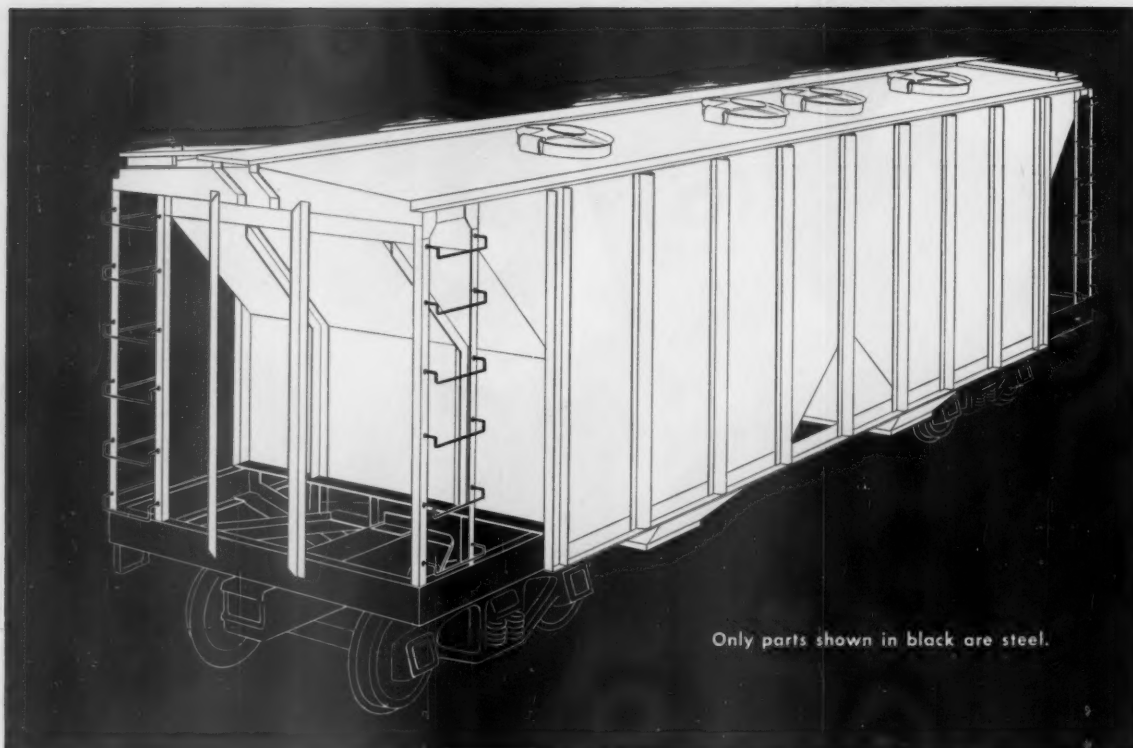
Prevent hot-boxes...save money with PLYPAK. Your inquiry invited.

PLYPAK

WASTE CONTAINER AND RETAINER



WAUGH EQUIPMENT COMPANY, New York • Chicago • St. Louis • Canadian Waugh Equipment Company, Montreal



Kaiser Aluminum designs new hopper body— increasing payload 14,000 lbs.

THIS experimental aluminum hopper car body, designed by Kaiser Aluminum engineers, shows how the extensive use of aluminum can reduce weight, increase payload and annual revenue.

This design is practical for two reasons: 1. Newly developed high strength and easily weldable aluminum alloys (5083, 5086), and 2. One-piece aluminum assemblies made possible by heavy press forgings and extrusions.

Aluminum hopper car bodies give you these four advantages:

Increased Revenue: weight reduced 14,000 pounds, and volume increased 270 cu. ft.

Non-contamination: expensive wax-coating on inside surfaces unnecessary in aluminum hoppers when transporting bulk foods such as flour and sugar.

Corrosion Resistance: needs no painting or other protective coatings. Requires less maintenance . . . keeps its modern appearance indefinitely, in all kinds of weather.

Low Center of Gravity: aluminum's light weight permits safe, reduced run times—increased speeds around mountain curves.

If you have special rail transport problems, Kaiser Aluminum engineers will gladly work with you to develop a design which will increase your payload and profits through the use of light, strong, versatile aluminum.

For immediate service, call any Kaiser Aluminum sales office listed in your telephone directory. Kaiser Aluminum & Chemical Sales, Inc. General Sales Office, Palmolive Bldg., Chicago 11, Illinois; Executive Office, Kaiser Bldg., Oakland 12, California.

Estimated Comparative Specifications of the Kaiser Aluminum Hopper VS. Steel

| | Kaiser Aluminum | Steel |
|--|-----------------|---------------|
| Type | Closed Hopper | Closed Hopper |
| Length (over strikers) | 35' 3" | 35' 3" |
| Width (over sub-side sills) | 9' 5½" | 9' 5½" |
| Height (top of rail to runningboard) | 14' 1" | 12' 8¾" |
| Cubic Content | 2228 cu. ft. | 1958 cu. ft. |
| Estimated Empty Weight (inc. trucks) | 36,700 lbs. | 50,700 lbs. |
| Body Material | Aluminum Alloy | Steel |
| Running Gear Material | Steel | Steel |

Kaiser Aluminum

setting the pace—in growth, quality and service

OWNERS REPORT THE DECISIVE DIFFERENCE IN NEW TD-18A Performance



"It can self-load and deliver fastest!" "International TD-18A improvements like the new 300% stronger track frames and cartridge-type roller seals increase production, machine life, and operating ease. As for power, our new TD-18A can self-load the 8-11 cubic yard scraper and deliver fastest of any crawler we ever had." *Here's proof extra traction matches the TD-18's power increase!* G. W. Owen, McDonough, Ga.



"Every load's a payload!" "My TD-18A International Drott is built for the operator's comfort. I know, because I'm the operator. It has 360° visibility which no other loader has. Every load is a payload." *No other outfit built gives you the TD-18's combination of power, visibility and responsive controls.* V. S. Steffes, Owner, Earthmoving and Clearing, Batavia, Illinois.



"Operators fight for new TD-18A!" "The TD-18A's were always good—fast, trouble-free performance and low operating cost made me money. The new model TD-18A is stronger and really planned for the man in the seat. It has operators fighting for it." Big, wide, comfortable cushions; hydraulic steering control boosters, and levers, conveniently grouped on the roomy, non-skid deck! *No wonder TD-18A handling ease turns "skinners" into high-producing operators throughout the day!* M. B. McKee, McKee Construction Co., Chickasha, Oklahoma.



"Uranium search toughest of all!" "I'm in the hardest work I know of—building roads into uranium claims, rim-cutting development work. The TD-18 we used for six years had the motor overhauled after five years, and when we traded a year later the transmission and drives were still original equipment. I believe this heavied-up new model TD-18A is by far the best of all." *Advances like the new bridge-strong welded track frames, stronger transmission and exclusive cartridge-type track roller seals back his judgment.* O. Frost Black, Owner, Blanding, Utah.

Ease into the foam-rubber-padded, panoramic-vision seat and see the *decisive difference*. Try new finger-tip power steering, and other big *job-easing incentives* for boosting production, as developed only by International. Prove TD-18A *full-power traction*—note, too, how the gear train is beefed-up to transmit 103 drawbar hp, and then some! Measure what

new 300% stronger track frames mean for full-capacity performance under slam-bang conditions. Compare how new cartridge-type track roller seals, and other International downtime-prevention engineering, beat anything else on tracks. Ask for a new TD-18A demonstration!



INTERNATIONAL® INDUSTRIAL POWER

MAKES EVERY LOAD A PAYLOAD

SAFETY makes the difference!



This car's safety depends on **Equipco**

EASILY CONTROLLED HAND BRAKES

When spotting cars nothing is more important than a fast-acting hand brake. The Equipco Hand Brake responds immediately . . . provides time to brake the car effectively—thus preventing violent car impacts and costly property damage.

The Equipco Non-Spin Hand Brake is easily operated with one hand...allowing the brakeman to keep a safe hold on the grab iron at all times. The brake wheel is the only control. To set the brake, the wheel is turned clockwise; and

for gradual release, the wheel is turned counter-clockwise the desired amount. The wheel can be left in any position *and it will remain there until it is moved again.*

For speed and safety, specify Equipco Non-Spin Hand Brakes. Available also are the drop-type hand brake for flat cars and the lever-type hand brake for drop-end gondolas. Every brake is A.A.R. Certified. Write today for free booklet, "Hand Brake Safety."

**EQUIPCO HAND BRAKE DIVISION
UNION ASBESTOS & RUBBER COMPANY**

332 South Michigan Avenue • Chicago 4, Illinois



UNARCO FIBROUS PRODUCTS DIVISION manufactures superior insulations—WOVENSTONE, INSUTAPE, INSUTUBE—all specifically designed for railroad requirements

INTERNATIONAL STEEL'S

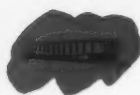


Permanent

Bulkhead Flat Car

INTERNATIONAL STEEL SPECIAL PURPOSE CARS

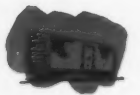
**cost less to build
than to rebuild an old car!**



This is a precision-built gondola—53' 6" long and of 70-ton capacity. It will last longer because it has the International all-welded underframe and superstructure.



No obsolete design in this freight car—with the All-Purpose Bulk-Lading door. Precision, welded construction eliminates corrosion and infestation harbors. There's a grain loading and inspection door in the side door — Purposeful design!



Corrective design makes this refrigerator car impervious to corrosion in pockets where moisture or infestation can gather.



Precision construction and corrective design make the International all-welded underframe a "perfect back-bone" for piggy-backs as well as all freight cars.

Here is an International "Special Purpose Car" that turned out to be a *general* purpose car!

The special A.A.R. Committee on Forest Products Loading discovered that: "... *the permanent bulkhead flat car offers big opportunities to both the lumber and the railroad industries.*"

We knew this car required considerably less securement—we knew it saved time in adjusting shifted loads and in car shopping. We also knew, as the Committee reported, that

"One man with a fork lift truck could load or unload an entire car in a little over an hour!"

But we *didn't* realize—as the Committee pointed out—that, because it *can handle 95% of ALL flat car lading*, it "... offers the railroads an opportunity to build freight traffic ... cuts loading and unloading costs by as much as 75%!"

INTERNATIONAL STEEL anticipates the requirements of the railroads and shippers through aggressive, functional design. LOOK FOR EXCITING NEW NEWS IN FREIGHT CAR DESIGN ... A NEW CONCEPT IN SHIPPING AND STOWAGE this fall ... from International!



INTERNATIONAL

EVANSVILLE 7, INDIANA

STEEL COMPANY

RAILWAY
DIVISION



Roundness of EQS wheel is practically perfect—as-cast. No machining necessary . . . the toughest and longest-wearing metal is *on the tread, NOT in the scrap bin.*

Pressure pouring in graphite molds results in superior flange and tread wear. Note the directional solidification in flange and tread, shown before heat treatment: *the grain of the metal in EQS wheels is at right angles to the point of wear.*

Long sweeping fillets under flange and rim of EQS wheels insure greatest possible strength.

The Griffin EQS plate is of *uniform thickness*, dimensionally accurate in any section.

Now made of .75 carbon steel. Exclusive casting process used in producing EQS wheels permits use of recognized steel analysis that will best meet your requirements.

Only one wheel can pass
this test with a score of

← **100** —

Location of hub and plate is identical in all EQS wheels; dissipation of heat is even, without developing internal stress.

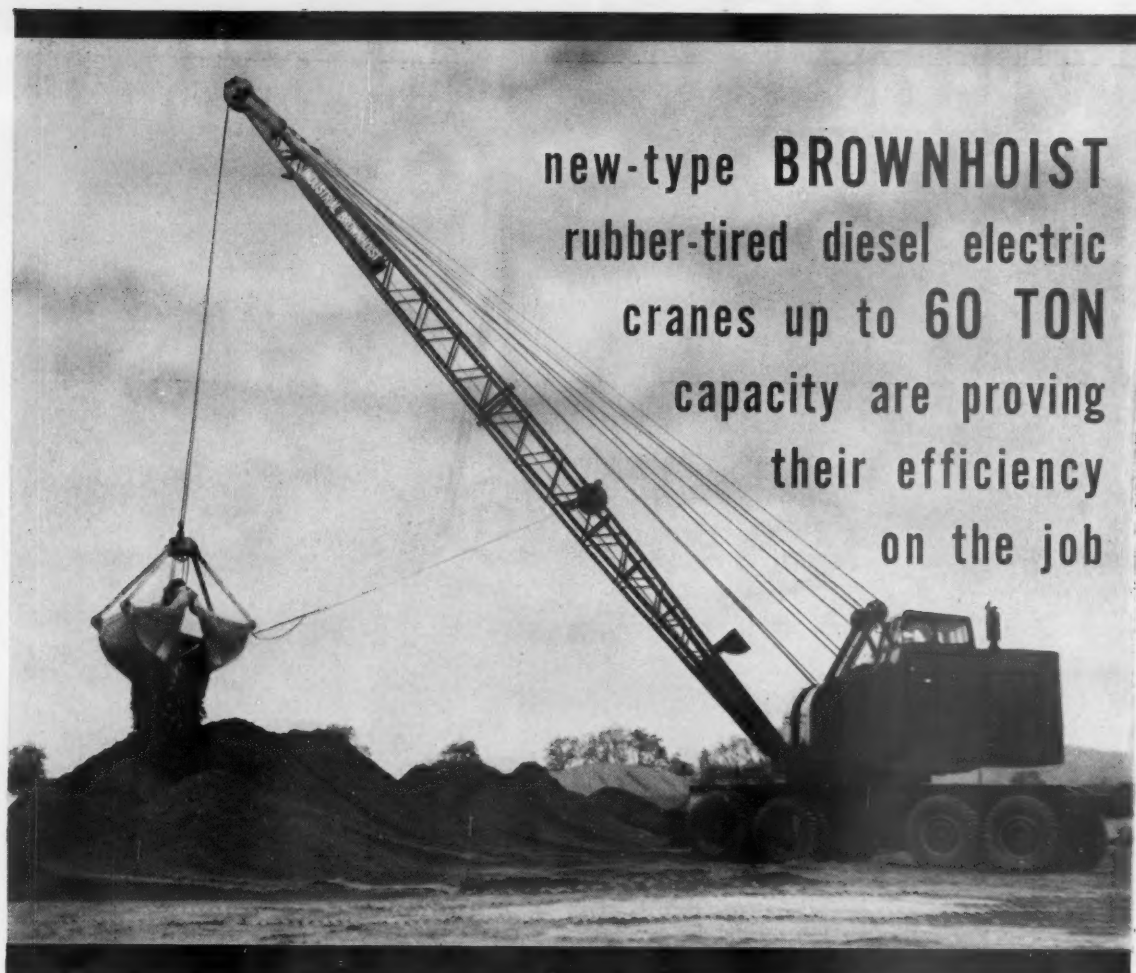


GRIFFIN EQS
ELECTRIC QUALITY STEEL

GRIFFIN WHEEL COMPANY
445 N. Sacramento Blvd., Chicago 12
GRIFFIN STEEL FOUNDRIES LTD.
St. Hyacinthe, Quebec, Canada

Give the "green" to GRIFFIN...
and watch your costs go down!





new-type **BROWNHOIST**
rubber-tired diesel electric
cranes up to **60 TON**
capacity are proving
their efficiency
on the job

183

BROWNHOIST MATERIAL
HANDLING EQUIPMENT
GIVES A LIFT TO
AMERICAN INDUSTRY



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Birmingham, Houston

The new Brownhoist Wagon-Cranes are specifically designed to do an outstanding job wherever high mobility and high capacity are required. You'll see them at work performing heavy duty jobs in mines, quarries, steel mills, for railroad and lumber operations and for many other large industries. Equipped with dynamatic clutch, anti-friction bearings at all essential points, power steering, electric travel and electric rotation. Mounted on a 12 wheel crane carrier capable of speeds up to 8 miles per hour, the unit can be operated by one man from easy-to-reach controls. Economical to operate. Available in capacities from 25 to 60 tons. For specification folder or further details, get in touch with our nearest representative or write us at Bay City.

SUBSIDIARY OF



BROWNHOIST

Quality Trackwork

A black and white photograph of railroad tracks receding into the distance. In the lower-left foreground, a signal light is visible. The tracks are made of steel rails on wooden ties, set in a gravel bed. The background is dark and indistinct, possibly showing a bridge or industrial structure.

UNITED STATES STEEL



on the job by U.S. Steel

● This main line turnout on the Union Railroad is located at the Duquesne, Pa., yards. It includes the following quality Trackwork products, manufactured by U. S. Steel:

- A 16'-6" insulated rigid split switch.
- TAYLOR Adjustable Rail Braces laterally bracing the stock rails.
- A USS No. 140M parallel-throw Switch Stand.
- A Rail Bound Manganese Steel Frog, with guard rails placed opposite.

USS Quality Trackwork products possess an inherent strength and hardness that gives them longer life and results in greatly reduced maintenance. The extra care and effort that goes into the manufacture of joint bars, tie plates, switches, frogs and special track layouts makes USS Trackwork the finest you can buy. Specify USS Quality Trackwork for all your requirements. Write to United States Steel Corporation, 525 William Penn Place, Room 4888, Pittsburgh 30, Pa., for data on any of the above products or assistance in design from our engineers.



TRACKWORK

UNITED STATES STEEL CORPORATION, PITTSBURGH • COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO
TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA. • UNITED STATES STEEL EXPORT COMPANY, NEW YORK

SEE The United States Steel Hour. It's a full-hour TV program presented every other week by United States Steel. Consult your local newspaper for time and station.

Room 4888, Pittsburgh 30, Pa., for data on any of the



How To Keep Your Diesels Humming

Railroads are modernizing their inventory records to keep pace with the tempo of diesel motive power! Now, as never before, this is imperative because railway management is providing modern shop and stores facilities for putting heavy mechanical and electrical repairs, inspection and overhaul on an efficient basis.

Dieselization of motive power is the largest single factor that has focused attention on renewal parts availability. It has posed new maintenance and inventory problems. An effective parts and stores control system is vital to your maintenance control program.

EFFICIENT SYSTEM REPLACES ANTIQUATED METHODS

The stores control system which gives the greatest savings on Diesel replacement parts is Kardex Inventory Control. You will welcome the great savings in clerical time, and the

greater accuracy which the Kardex 2-card system offers.

In each Kardex pocket are two control cards. The lower card remains in the file with the last entry showing the balance on hand. When the balance falls to the order point the upper card is removed from the pocket and sent to purchasing as a Traveling Requisition.

A movable Graph-A-Matic signal in the visible margin enables the clerk to see instantly which items need to be ordered.

Ask for new free illustrated booklet on "Inventory Control" — KD406; also MC689 — "Railroad Purchases and Stores" (on loan). Write Room 1988, 315 Fourth Avenue, New York 10, New York.

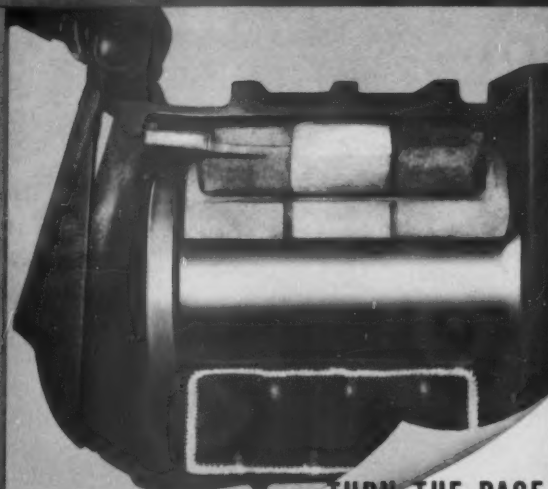
Remington Rand
DIVISION OF SPERRY RAND CORPORATION

STOP HOT BOXES!



WITH
REDIPAK
JOURNAL BEARING LUBRICATING PAD

*An Effective, Economical Solution
To The Hot Box Problem*



FOR FURTHER DETAILS.....TURN THE PAGE

STOP HOT BOXES with REDIPAK (CONTINUED)

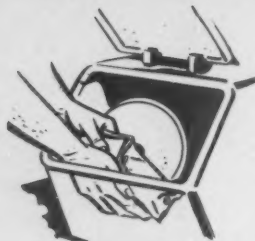
SIMPLE CONSTRUCTION

What it is: The "Redipak" lubricating pad is a square block of foam neoprene, molded with cored passages, covered with cotton wicking material. It is fully symmetrical—that is, it can be installed either face up, any side out. Being somewhat shorter than the journal, it allows for lateral motion and creates no friction-generating thrust loads on the pad. Grommets in the four corners enable it to be removed easily with a packing hook.



How it works: The "Redipak" lubricating pad is installed simply by inserting it between the journal and the bottom of the box. The foam neoprene forces the cotton cover against the underside of the journal. The cored passages in the foam provide additional reservoir capacity and with vibration tend to act as pumps and permit a large volume of oil to saturate the neoprene, which has an open-cell structure. This keeps the wicking cover soaked with oil, which is transferred to the journal and bearing as the axle turns. It can operate for extended periods with no free oil in the box.

FOOLPROOF INSTALLATION



The "Redipak" lubricating pad is as nearly foolproof as engineering can make it. Since it is square, and symmetrical with respect to top and bottom, it can be installed either side up, any edge out.

The new pad is prepared for installation by soaking in warm oil for 24 hours, or by squeezing a number of times while submerged in oil. The oil-soaked pad is inserted through the journal box opening, and pushed in

under the journal, using one hand like a shoehorn.

After the pad is inserted, oil is added until the level is two inches from the bottom of the box. After the initial oiling the oil level is maintained at about an inch.

The pad is easily removed with a packing hook which has had the point ground smooth or with a piece of bar stock with a hook bent in one end.



COOLER OPERATION

Positive journal lubrication under extremes of heat and cold is reliably assured with the "Redipak" lubricating pad. In hot weather cotton waste packs down and separates from the journal, leaving it without lubrication. In sub-zero weather the waste forms a tar-like mass with the oil, which works up under the bearing to form a waste grab. Both of these shortcomings are overcome with the "Redipak" lubricating pad.

In addition, this new lubricating pad delivers oil to the journal much more reliably than cotton waste does. It also develops considerably less friction. As a result, bearings and journals run cooler.

In laboratory comparison tests with waste packing, the "Redipak" lubricating pad under certain conditions operated at temperatures of as much as 50°F. cooler than the bearing

lubricated by waste. There was never any tendency to glaze.

In laboratory starvation tests, which consisted of removing all free oil from the journal box, the only oil available to lubricate the journal was that contained within the "Redipak" lubricating pad. The test machine was operated at a speed of 60 mph and the bearing load was 20,000 lbs., ambient temperature 70°F. Under these conditions the bearing operated 10,000 miles before failure.

In service tests, "Redipak" lubricating pads have operated over 40,000 miles each, without noticeable wear. No pad has shown any sign of glazing, and inspection of bearings showed that the pad did not lint. The average temperature of the journals lubricated with "Redipak" pads was appreciably lower than those lubricated by waste.

LONG LIFE

As a result of extensive laboratory and service tests, the life of the "Redipak" lubricating pad is estimated at approximately three years of average freight car operation.

"REDIPAK" LUBRICATING PADS ARE AVAILABLE IN FIVE SIZES

| Size of Journal | Dimensions | | Weight (lbs.) | |
|-----------------|---------------|--------|---------------|-----------|
| | Length/Width | Height | Dry | Saturated |
| 4 1/4 x 8 | 6 1/2" square | 3 1/4" | 0.85 | 3.00 |
| 5 x 9 | 7 1/2" | 3 1/2" | 1.062 | 4.00 |
| 3 1/2 x 10 | 8 1/2" | 3 1/2" | 1.50 | 5.00 |
| 6 x 11 | 9 1/2" | 3 1/2" | 1.70 | 6.00 |
| 6 1/2 x 12 | 10 1/2" | 3 1/2" | 2.25 | 7.00 |

For further details consult your National Bearing representative, or write:



NATIONAL BEARING DIVISION

4930 Manchester Avenue, St. Louis 10, Missouri

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Current Publications

PERIODICAL ARTICLES

THE REFORMER REFORMED: JOHN H. REAGAN AND RAILROAD REGULATION, by Gerald Nash. *The Business History Review*, June 1955, pp. 189-196. Graduate School of Business Administration, Harvard University, 217 Baker Library, Soldiers Field, Boston 63.

The changing attitude toward railroad regulation of reformer John H. Reagan, co-author of the Interstate Commerce Act of 1887, tells much about the validity of the objections raised to such regulation by railroad men of the 1880's.

SOUTHERN PACIFIC BULLETIN (Pacific Lines). August 1955. Southern Pacific Company, 65 Market st., San Francisco. Free.

The whole August issue of the SP's regular monthly magazine is entirely devoted to the history and progressive development of the railroad. The text is a revision and expansion of what appeared in a previous booklet, "75 Years of Progress." It is issued in connection with the centennial of the Sacramento Valley (*Railway Age*, August 22, page 9).

AN ECONOMIC ANALYSIS OF "PIGGY-BACK" TRANSPORTATION, by Dr. Harold L. Johnson, associate professor of economics, School of Business Administration (Atlanta Division), University of Georgia. August issue, *Atlanta Economic Review*, published by the university. Free.

Dr. Johnson explores some of the questions surrounding this "increasingly important" coordination procedure in transportation, and finds there are gains, from the public standpoint, "not extraordinary in extent nor universal in application, but probably . . . in sufficient supply to warrant community encouragement of this innovation . . ."

The author believes each motor common carrier must examine its own operation carefully as to costs and that rail charges to such carriers "must be somewhat less than . . . 20 cents per vehicle-mile before cost-savings of sufficient amount are present."

In an all-rail TOFC operation, Dr. Johnson concludes that such service with two trailers per flat car, given sufficient volume, "should result in earnings sufficient to meet both out-of-pocket and fully distributed expenses."

While one trailer per flat car, with car-mile earnings of about 20-25 cents per car-mile, may not be profitable by a long-run out-of-pocket cost standard, a more short run out-of-pocket cost standard can perhaps be formulated.



APRIL 6, 1872



NEW INVENTION MAKES EVERY MAN A TELEGRAPHER

NEW YORK, April 6—A simple telegraph instrument which automatically prints the dispatch being sent or received has been designed by Messrs. Foote and Randall of New York.

The advantages of a telegraph transmitting apparatus which can be operated by any person of average intelligence, after a few minutes instruction, is sufficiently

obvious without further comment. Every man can thus be his own telegraph operator, and railroad conductors, locomotive-runners, clerks or office boys can quickly become expert in the use of the instrument.

In the transmitting apparatus as in the receiving apparatus, a train of wheels is employed.

Even back in the days when the printing telegraph was news, Graybar was active in railroad communications. From 1869 to date, Graybar has always kept its stocks and services in tune with the newest developments in railroad communications. Wires and cables . . . to carrier telephone and telegraph equipment . . . sound systems of all types, each item in the long list of modern railroad requirements can be supplied through 120 conveniently located Graybar offices and warehouses.

To save paper work, to save time, and to get the experienced assistance of railroad electrical equipment specialists, make your next order read "Via Graybar". Graybar Electric Company, Executive Offices: Graybar Building, 420 Lexington Avenue, New York 17, N.Y.

100,000 electrical items are distributed throughout the nation . . .

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OFFICES AND WAREHOUSES IN OVER 120 PRINCIPAL CITIES



Make full use of the wires you have!



P-A-X Telephone Systems provide automatic telephone service, using the railroad's own circuits. Today, forty-two railroads are benefiting from P-A-X Systems.



Lenkurt Carrier Systems provide a simple, economical way to expand circuits. More than three-fourths of all railroad carrier equipment in U. S. A. is made by Lenkurt.

Railroads can save much of the cost of telephone service — simply by using wires they *already own!* These same telephone lines that now link divisions up and down the line can bring automatic telephone service to every executive, every department throughout your system. Now you can afford all the channels you need to link offices to shops and yards.

Your Communications Superintendent can tell you how your railroad could have its own telephone network with Lenkurt Carrier Equipment and P-A-X Telephone Systems from Automatic Electric.

Lenkurt Carrier Equipment creates, on existing wires, new communication channels for this complete, system-wide telephone service. And *P-A-X Telephone Systems* offer telephones and control equipment to make it completely automatic—lightning-fast, 24 hours a day!

We'll be glad to show you how to plan a complete, integrated communications system to meet your needs. The savings at stake justify your immediate attention! Call or write Automatic Electric Sales Corporation (HAYmarket 1-4300), 1033 West Van Buren Street, Chicago 7, Illinois. *In Canada:* Automatic Electric Sales (Canada) Ltd., Toronto. Offices in principal cities.



AUTOMATIC  ELECTRIC

ORIGINATORS OF THE AUTOMATIC DIAL TELEPHONE

What's New in Products

Rolin Lubricator

The Rolin journal lubricator has successfully passed AAR acceptance tests and has been applied to about 500 freight cars on 25 U.S. railroads. It is a pad-type lubricator, widely used as standard equipment on European roads and adapted to American operating conditions by extensive research in this country during the past two years.

The device consists of a flexible steel framework which holds a lubricating pad in constant contact with the lower surface of the journal to apply and distribute the lubricant. Conduction of the oil from the reservoir in the lower part of the journal box to the surface of the lubricating pad is by capillary action.

Provision is made to retain oil by means of a splash guard in the rear of the box, but the pad itself is said to hold sufficient oil to maintain proper bearing temperature for approximately 3,000 miles if for any reason the reservoir oil is lost.

A special textile cord is used in the lubricating pad, both for the feeding cords and for the loops which form the top surface of the lubricating pad. Around the inner filling of the cord is a covering of other textile materials,

the purpose of which is to feed the oil from the inner filling to the journal and to prevent particles of the inner filling from becoming detached and clogging the bearing.

In addition, the outer covering prevents the softer material of the inner lining from becoming glazed.

The loop construction of the top of the pad also is designed to prevent glazing by permitting metal particles, dust and dirt to drop down where they cannot interfere with the oil flow or form a crust on the upper surface of the pad. It is said that the pad will not absorb water after once being soaked in oil, thus eliminating any possibility of freezing.

Advantages claimed for the Rolin device include: Reliable and relatively low-cost lubrication of car journals without interruption due to waste grabs, glazing, or other interruption of oil supply; high oil-feeding capacity, up to 2.23 ounces per hour at 50 mph; ease of application in all standard journal boxes without jacking, special tools or skilled mechanics; convenient removal and inspection of the wedge and bearing without taking out the lubricator itself; reclamation and reuse after 100,000 miles of service, the equivalent of at least 36 months be-



Rolin lubricator application in AAR standard journal box



How special textile oil-feeding cords are applied in the Rolin lubricator

tween repacking periods; practically no servicing; and important savings in oil, labor and maintenance costs. *Runknagel & Nicols, Inc., 165 Broadway, New York 63.* •



Lightweight Wire Rope Sling

By use of a new arrangement of patented twin thimbles, a wire rope sling can be made shorter for such purposes as lifting diesel units by the

lugs on the rear. In this fitting, the rope itself is continuous. It goes completely around the pin rather than being joined to the fittings on either end. This feature, in addition to permitting a shorter minimum overall sling length (3½ ft), also cuts the weight of the fittings approximately in half because the fitting itself is not in tension and can therefore be made lighter.

The safe load for each single sling made with eight strands of ¾-in. wire is 26.6 tons, or 53.2 tons for a pair as shown in the illustration. Altogether, there are ten sizes of slings made in this style, each having eight strands of wire which range from ¾ in. to 1¼ in. Safe loads per single sling run from 7 to 72.8 tons. *Broderick & Bascom, 4203 Union Blvd., St. Louis 15.* •

Insulating Structural Reinforcement

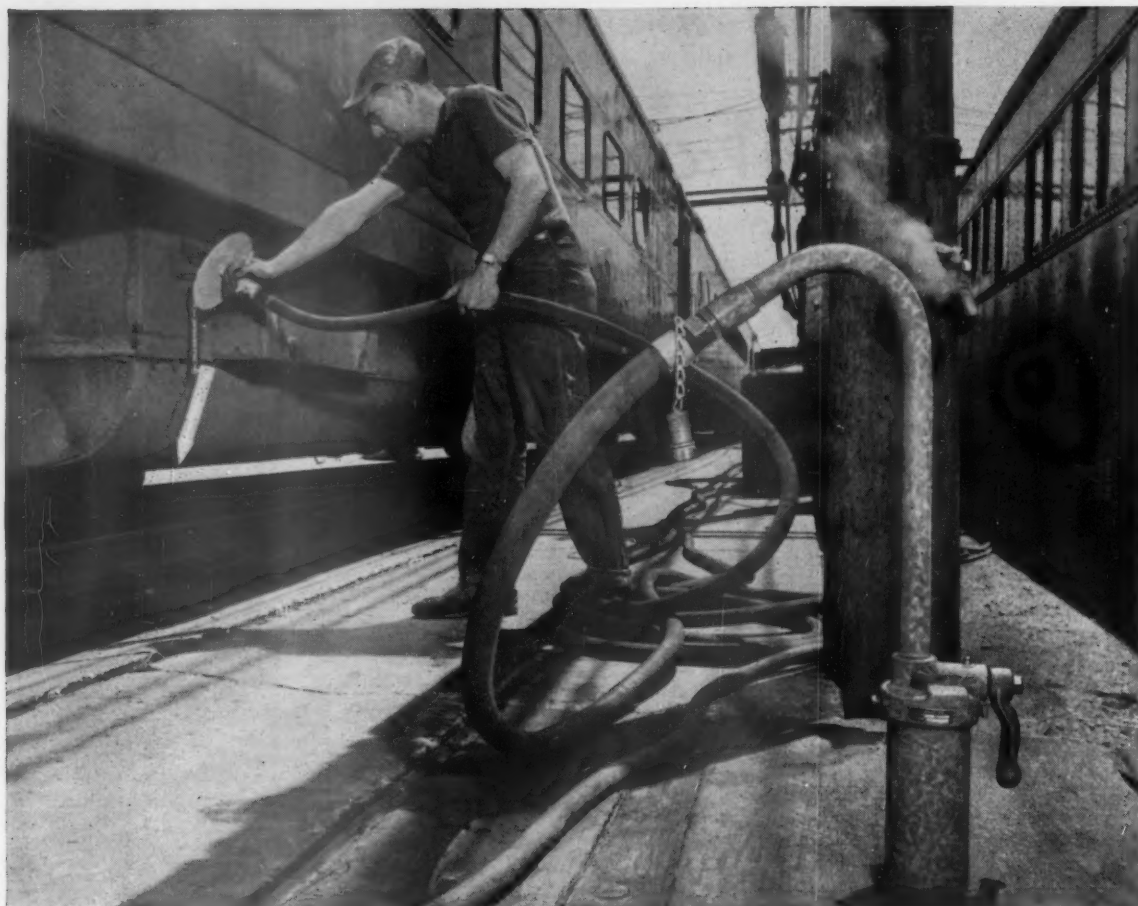
Urethane foam as a core material combines lightness, strength and rigidity. The aircraft industry has made extensive use of this material as a lightweight reinforcing core between metal skins. The structural members so formed have a high strength-to-density

ratio and are very light. One of the outstanding characteristics claimed for urethane foam is that it can be foamed in place to fill any cavity regardless of the shape.

This eliminates the need for cutting and shaping.

The foam is produced by mixing two liquid components at room temperature and pouring the resulting mixture into the space to be filled. A product will result whose physical properties and characteristics are said to be predictable and reproduceable without complicated equipment or handling. This means lower costs in equipment, storage, handling and fabrication. When set, urethane foam reportedly supports the walls enclosing it at every point on their inner surfaces and strongly adheres to them.

These foams are said to have a thermal insulating value twice that of cork. They are water-resistant, rot and fungus proof, chemically inert and absorb sound and vibration. They can be drilled, sawed, milled or sanded. The material has been recommended as a core material for passenger, box and refrigerator cars. Already several refrigerator car installations have been made. *Nopco Chemical Company, Harrison, N. J.* •



Contamination can't seep into Crane's new, improved Frostproof Hydrant

What about the water supply for your diners and passenger cars . . . is it being contaminated by surface and sub-soil pollution that enters through your station or yard hydrants?

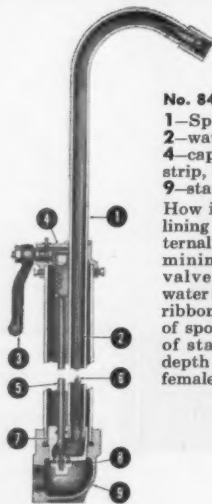
If pollution is a problem in your yards, it's time to change to CRANE Improved No. 840 Frostproof Hydrant. Making the change-over can be far less costly than you think.

Crane's Improved No. 840 Hydrant does not need, nor have, an unsanitary underground drain-off. It is sealed completely against contamination seepage. As a result, many health authorities recommend this Crane hydrant.

Crane's Improved No. 840 Hydrant is *frostproof*! Its superior, patented inner construction (shown right) assures free-flowing, dependable service in coldest weather. For complete details, write Crane Co., General Offices: 836 S. Michigan Ave., Chicago 5, Ill. Branches and Wholesalers serving all areas.

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No. 840 Improved Frostproof Hydrant

1—Spout—with female coupling; 2—water tube, 3—operating handle, 4—cap, 5—valve stem, 6—separator strip, 7—valve body, 8—disc holder, 9—standpipe housing.

How it operates: elastic water tube lining contracts after each use. Internal plastic separator keeps ice to minimum—a thin ribbon. When valve is opened again, incoming water follows separator strip, forcing ribbon of ice out of spout. Height of spout above ground, 30"; height of standpipe above ground, 12"; depth of bury, 3, 4 and 5 ft. Size of female inlet, 1½"; outlet, 1".



CRANE'S FIRST CENTURY...1855-1955

Better Make the Stockpile Big Enough

For full mobilization, this country will need a minimum of 320,000 new freight cars to be built during the first three years after the emergency begins. So said a committee of experts from the railway and traffic fields in a report to the Office of Defense Mobilization—the so-called Conway Report (*Railway Age*, August 15, page 48).

This is an extraordinary goal. It averages more than 100,000 new cars a year—a production figure which was never reached during World War II or the Korean hostilities.

The committee apparently believes the goal is a high one, because it proposes that the material needed for about 118,000 cars be stockpiled in components before the emergency, to be drawn upon during the first three years of mobilization. This would leave 60,000 cars a year, other than tank cars, plus a total of 22,500 tank cars, to be built from materials furnished currently within the same emergency period. The government would put up the money to provide the stockpile in the first instance, but would get its money back as the components are withdrawn to fill orders, once the emergency begins.

This proposal faces the realities of the situation which confronts both the railroads and the government in dealing with the needs of full mobilization. Railroads do not have the resources to enable them to assume the responsibility for all the advance preparation for mobilization that may be desirable.

No other industry assumes this obligation. On the other hand, it is a definite responsibility of government to assure itself that every foreseeable facility needed for mobilization of both men and materials be made available in advance. A stockpile of freight-car components is in line with that responsibility. The railroads have, providentially, been able to handle the traffic during previous crises with the equipment they just happened to have on hand—but that is no reason for believing that they will always be able to do so.

The details of the stockpiling proposal are not yet available. The question might be raised, however, as to whether the size of the proposed stockpile is adequate. Here are the programs of freight-

car construction set up, partly by the railroads and partly by the War Production Board, for the first three years of World War II, for which materials had to be supplied currently:

| | Program | Actual Deliveries |
|------------------------|---------|-------------------|
| 1942 | 113,594 | 80,874 |
| 1943 | 80,000 | 27,360 |
| 1944 | 50,000 | 34,432 |
| Three-year total | 243,594 | 142,666 |
| Average per year | 81,198 | 47,555 |

When the Korean emergency arose the railroads outlined a program which called for new freight-car production of approximately 10,000 cars per month—120,000 cars per year. For the three years, 1951, 1952, and 1953, actual deliveries were as follows:

| | |
|------------------------|---------|
| 1951 | 96,000 |
| 1952 | 77,768 |
| 1953 | 81,021 |
| Three-year total | 254,789 |
| Average per year | 84,930 |

It will be remembered that after the first year of the Korean hostilities the dates for completion of some phases of that defense effort were postponed. But it cannot safely be assumed that the next national emergency will permit less than an all-out defense effort, nor that latitude in timing will be possible.

In an all-out defense effort, with no latitude as to time, there will never be enough critical materials to satisfy fully all of the demands of defense, to say nothing of meeting reasonable minimum civilian needs. To propose a program of new car-building for the first three years of mobilization—exceeding annual deliveries during the first three years of World War II by upward of 22,000 cars—certainly assumes that the railroads will have a lot more luck in the scramble for materials in future emergencies than they ever had during World War II.

Psychological factors make the success of such a program questionable. The very fact that railroad transportation did not break down, in spite of the deficiencies in the support it received from government, is one of these factors. Having performed miracles in the past, the railroads now have the reputation. When the pressure for materials builds up after full mobilization is under way, there will be plenty of people ready to argue that what the railroads did once they can do again.

If 320,000 cars are to be built in three years of a war period, then a stockpile of materials of the size contemplated doesn't seem to be big enough.



FROM A SMALL PATCH JOB TO . . .



A COMPLETE RELINING. HERE'S A . . .

Quick Way to Get Tight Cars

Two new methods of lining and upgrading freight car interiors offer quick and substantial relief to shortages of cars tight enough for bulk commodities like grain.

The first, a patching method, can be applied to cars which have holes in the wooden lining or cars stained in spots by oils, greases, or asphalt products—cars which can't be put into Class A commodity service without the considerable patching or cleaning that would ordinarily take a car out of service 24 hours or more.

The second method is for cars with interiors that would otherwise have to be torn out and replaced completely—the major type of repair that would keep the car out of service 3 or 4 days. In either procedure—patching or relining—serviceable cars can be made available within 3 to 6 hours.

The bad-order equipment is upgraded to higher class service with a piece of Fiberglas cloth the approximate shape of the defective area and one of two primary materials: A vinyl plastic coating for patching, or a polyester-type resin for complete relining.

The plastic coating is used for three general purposes:

- Patching over flaws that would tear sacks and packages in loading and transit—for those cars that have been exposed to ladings that caused lining or sheathing splits, cracks or holes, roughened floors, or strapping and stapling protrusions.

- Patching as a sealer to keep out dust, dirt, vermin, oil and grease.

- To seal a car completely against loss of bulk lading through cracks, holes and breaks in car linings, decking or grain doors.

Spray On or Brush On

Repairs are made by applying a basic coating of vinyl plastic from a solution that can be sprayed on with pressure spray equipment, or brushed on with ordinary

paint brushes. The first coat acts as an adhesive for the Fiberglas cloth reinforcing which is applied while the coating is still wet. The second coat of plastic is applied over the cloth to give the repaired area additional strength.

Material can be applied by regular freight yard forces and two men can upgrade up to 30 cars a day, depending upon the extent of repairs. The patched areas dry in 3 to 4 hours, depending upon atmospheric conditions, and the cars are then ready for use and ready to roll.

The tensile strength of a single layer, or lamination, of this plastic material and reinforcing cloth has been tested to 11,000 psi. The burst strength of a lamination, using a "push through" method on patched areas, has been tested with pressures of 175 to 200 psi. Several layers can be applied to withstand greater pressures. Bulk weight has been supported with similar material where swimming pools have been patched and relined, using basically the same spray-patch method.

Hard Finish for Relining

In the second method demonstrated, the complete or partial relining of a car is achieved by using a heavier weave of Fiberglas cloth as a reinforcing base and a thick, especially formulated polyester-type resin which is sprayed on and dries to a rigid, hard, smooth finish.

Two men generally can complete an application, one unrolling the 38-in. wide roll of woven glass cloth, while the other sprays the basic polyester coating. In this method, two men can usually completely reline the sides and ends of a car (up to the 76-in. height of 2 rolls) in approximately 2 hours. Finished cars dry and are ready to roll in 6 to 8 hours.

Materials used in either method come packed in bulk containers of 5 and 55 gallon capacities and are light gray in color.



Floors, too, can be sprayed. As with the walls and ends, the defective area is first outlined with chalk . . .



Then a piece of Fiberglas cloth is cut to the approximate shape of the area and the liquid is applied.



In all cases, the liquid is applied first and serves as the adhesive to hold the glass cloth in place.



A second coat of the liquid is applied over the glass cloth to give the finish and strength desired.

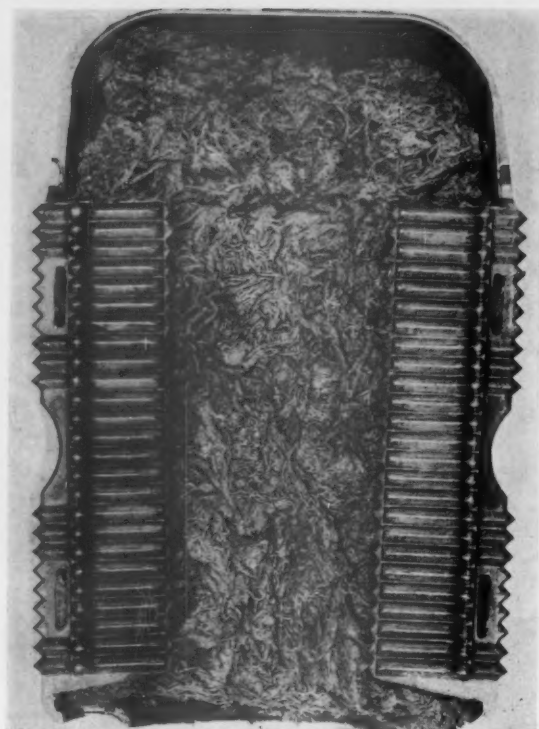
The glass cloth used as reinforcing for the patch material and that used with the relining material both come in 38½-in. wide rolls 100 yards long. Ordinary spray pump equipment is used and no special preparations are necessary as materials are ready to use direct from bulk containers.

Either coating can be applied in wide ranges of weather and temperature. After drying, neither will

soften below 250 deg F. nor become brittle and crack at 30 deg below zero.

Freight cars that have been upgraded by either of these two methods can be cleaned with detergents, disinfectants or steam without affecting the coating.

Both the patching and lining materials are distributed by the T. J. Fleming Company.



Packing and container condition with nearly 15 months service were so good that PRR made its first application to the AAR for an extension of the repacking date which was first granted for 20 months.



Thirty-six months service found this box from a hopper car with the packing container and waste both in good condition. AAR has given the PRR permission to operate 10,000 Plypak cars on 36-month repack basis.

Pennsy Proves Its Plypaks

Five-fold hot box reduction and repacking on a 36-month basis lead the PRR to expand its installations of these journal lubricating devices

The Pennsylvania has been with the Plypak packing container from very early in its development. Today that road operates the largest fleet of Plypak-equipped cars in the country.

This is being done after more than five years of intensive road and laboratory testing. The PRR is not stopping its investigations of devices for improving journal box performance and has made installations of Cel-O-Paks, Miller lubricators, Uni-Paks and other lubricators.

This railroad knows that even the conventional waste-packed box can give improved performance when additional men and time are devoted to its servicing. During the summer of 1950, the Test Department followed the inspection, servicing and performance of certain east-bound and westbound through freights between Enola and St. Louis to develop information about journal box performance under conditions that then existed. It was recommended that qualified personnel be used to do box servicing, and that sufficient time be allowed to give proper attention to all journal boxes at initiating terminals and at one or two intermediate points on the routes

of through arranged-service trains, depending on the length of their runs.

These recommendations involved considerable additional expense and the possibility of some delay in dispatching trains. The railroad sought other means of achieving the same results without additional servicing, and by this time it was believed that the Plypak offered a possible answer.

Plypak on the Scene

At the same time that the PRR was making these tests with conventional boxes, the first successful installation of the original Plypak type device was made on 25 baggage cars.

These cars were picked for the test because they make high mileage and can usually be located for inspection. In 1948, 25 of these same cars had been fitted with an earlier model of the packing container which did not prove satisfactory. The containers installed in 1950 have been successful. After five years, 144 of the original 200 continue in service despite the fact that

they are made of a rubber compound which the manufacturer states has been greatly improved since that time.

Having done test plant work on the high and low temperature characteristics of the device, and with the baggage cars operating satisfactorily, the PRR was ready to move against its real problem—hot boxes on freight cars.

In examining its hot box statistics, it appeared that the PRR 70-ton hoppers were contributing more than their share to the system hot box record. Closer examination proved that this was the case—probably because these cars are operated at or near their load limit more of the time than other types of cars, and because of their age.

Fewer Hot Boxes

It was decided that the 70-ton hoppers, Class H21, would be the proving ground for the packing containers. From an original 500 cars, the Pennsylvania has made additional Plypak installations until today it has nearly 6,000 equipped hoppers in service. These cars have 6-by 11-in. journals.

To provide a means of comparing the hot box performance, the balance of the fleet of approximately 35,000 Class H21 cars has been used. All these hoppers, both standard and Plypak, operate under about the same loading and service conditions. From the beginning, the Plypak-equipped cars have never had as high a proportion of hot boxes as have been experienced with the standard waste-packed cars. The relative position of the Plypak cars has improved until by the end



Seventy-ton hopper, class H21, is a venerable workhorse of the Pennsy freight car fleet which has been the proving ground for the Plypak container. Hot box performance data comes from about 35,000 of these cars.



Baggage cars, class B60, were first PRR cars to have the Plypak type packing container. Redesign of the original containers which were unsuccessful has developed into the container which today is in the journal boxes of freight cars on many roads.



Covered hoppers built this year were equipped with Plypaks as original equipment. Three hundred of these cars, 25 baggage cars and a few box cars are Plypak-equipped in addition to the H21 hoppers.

CONDITION OF JOURNAL COMPONENTS

After Extended Repack Test on 70-Ton Hopper Cars

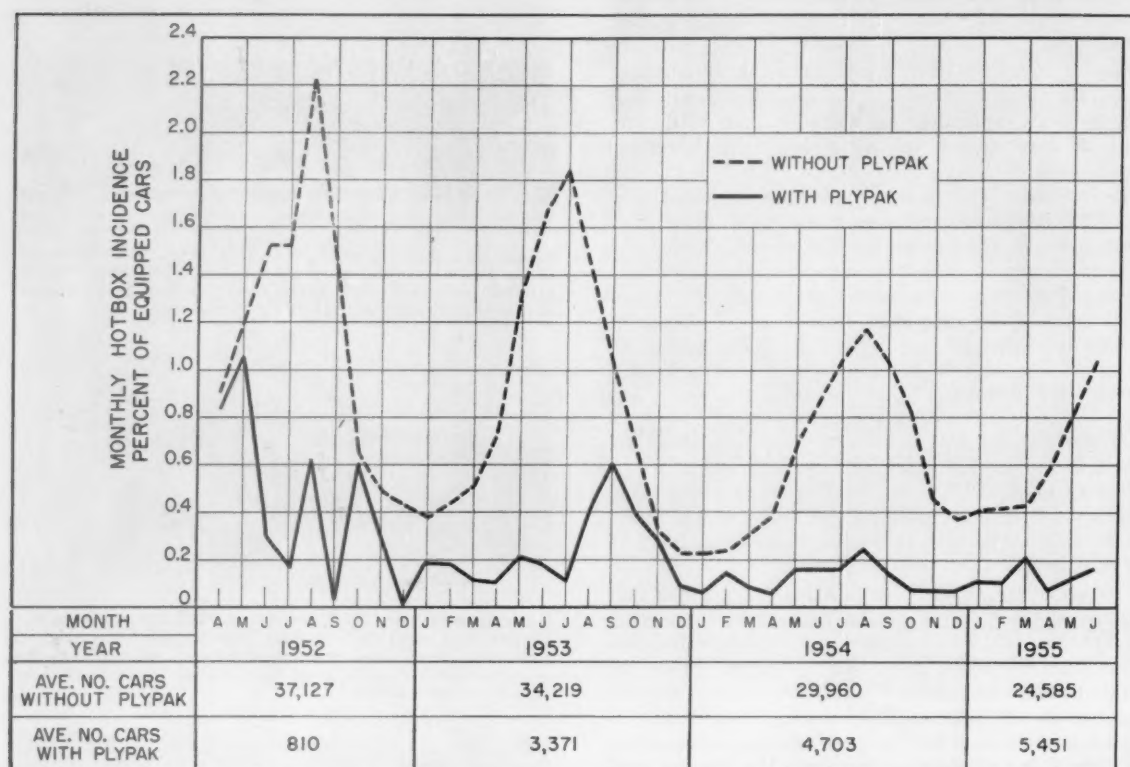
(Reported as percentage from test groups of 25 cars)

| | | | | |
|--|------|------|------|-------|
| Nominal repack period—months | 20 | 24 | 30 | 36 |
| Actual average months in service | 20.2 | 24.4 | 30.6 | 36.4 |
| Condition of Plypak: | | | | |
| Good | 67.0 | 85.0 | 67.5 | 81.0 |
| Slightly torn, reused | 24.5 | 11.0 | 27.5 | 11.0 |
| Scrapped | 8.5 | 4.0 | 4.0 | 8.0 |
| Condition of journal bearings: | | | | |
| Good | 46.5 | 57.5 | 45.5 | 67.5 |
| Original bearings missing | None | None | 7.0 | 3.5 |
| Excessive end wear | 11.5 | 14.5 | 2.5 | 0.5 |
| Loose lining | 8.0 | 1.5 | 4.0 | 1.0 |
| Broken lug | 7.5 | 4.0 | 1.0 | 1.0 |
| Broken collar | 27.5 | 21.5 | 27.5 | 16.5 |
| Cracked collar | 13.0 | 7.0 | 12.5 | 9.0 |
| Good wedges | 75.0 | 96.5 | 91.6 | 86.0 |
| Good dust guards | 30.5 | 30.5 | 32.5 | 31.1 |
| Good dust guard plgs | 45.5 | 56.5 | 27.0 | 49.0 |
| Good journals | 82.5 | 93.0 | 99.6 | 100.0 |
| Condition of packing: | | | | |
| Suitable—not requiring renovation | 84.0 | 80.5 | 84.0 | 86.0 |
| Unsuitable—required renovation | 16.0 | 19.5 | 16.0 | 14.0 |
| Sample analysis (Not all cars): | | | | |
| Clean dry waste (AAR Spec. 20% min.) | 23.7 | 25.2 | 22.7 | 25.9 |
| Total impurities (AAR Spec. 2.5% max.) | 2.3 | 0.9 | 4.2 | 3.6 |
| Moisture (AAR Spec. 2%) | 0.8 | 0.5 | 2.4 | 0.4 |
| Oil (AAR Spec.—Balance) | 73.2 | 73.4 | 70.7 | 70.0 |

of June, this year, the standard cars had accumulated a record which showed them to be 5.31 times as likely to have a hot box.

Improved Summer Performance

As the number of Plypak installations grew, it became evident that the performance of these devices does not change greatly during hot weather. The standard cars in this test showed the usual swing from good performance during the winter to poor performance during the warm summer months. Since the Plypak uses the same oil and puts this oil on the journal surface with the same waste, it would seem that either type of lubricator would be affected in the same way. PRR tests have shown that when hot, the waste pack in the conventionally packed box loses some of its resiliency and does not continue to exert the same pressure against the journal surface—in some areas contact between the waste and journal may be lost entirely. The rubber container does maintain the necessary packing pressure



Record shows PRR Plypak-equipped cars have never been set off between terminals at as high a rate as the conventionally packed cars since records were first kept in 1952. From that time most H21 hoppers when rebuilt

have been fitted with Plypaks. During the last half of 1953, faulty journals on new wheel sets accounted for the relatively poor showing of the Plypak cars. This condition was not the fault of the journal lubricating device.

against the journal to insure contact and, along with the oil pumping action of the Plypak, this apparently is the reason for the improved summer operation.

Repacking on 36-Month Basis

As the first cars equipped approached their mandatory 15-month repack date, three were examined and were found in excellent condition. These Plypak cars had clean packing which was well saturated with oil and was not glazed on the surface next to the journal. Dirt which enters the Plypak box apparently settles to the bottom of the box when the car is running. It remains there under the rubber container rather than sitting on top of the waste and moving to the journal surface.

These facts were reported to the AAR and a request was made that 200 of these hoppers be allowed to continue in service for 20 and 24 months before repacking. This was granted in September 1952. In 1953 the condition of the packing in the Plypak cars continued to be good enough for a request to be made for permission to operate 50 cars for 30 and finally for 36 months.

Early in 1955 a final report was made to the AAR on the cars which had operated 36 months without repacking. It indicated that there were no bad effects from allowing a car to operate for this length of time with the packing container. Much of the waste packing was rated as suitable for further service. The AAR then granted permission to the Pennsylvania for the operation

JOURNAL PERFORMANCE

Serviceable 70-Ton Hopper Cars, Class H21

| | 1952 | 1953 | 1954 | 1955 |
|--|------|------|-------|-------|
| TYPICAL MONTHLY PERFORMANCE—June of each year indicated | | | | |
| Percentage of total 70-ton hopper cars equipped with Plypak | 1.74 | 8.00 | 13.28 | 19.07 |
| Percentage of total hot boxes which occurred on Plypak-equipped cars | 0.35 | 0.87 | 2.64 | 3.20 |
| CUMULATIVE PERFORMANCE from April 1952, through June of year shown | | | | |
| Average percentage of total 70-ton hopper cars equipped with Plypak | 1.64 | 4.29 | 7.48 | 9.86 |
| Average percentage of total hot boxes which occurred on Plypak-equipped cars | 0.99 | 0.93 | 1.72 | 2.04 |
| Average percentage of Plypak cars which have had hot boxes | 0.72 | 0.22 | 0.20 | 0.16 |
| Average percentage of standard cars which have had hot boxes | 1.20 | 1.04 | 0.89 | 0.85 |
| Ratio of standard hot box incidence to Plypak hot box incidence | 1.66 | 4.76 | 4.54 | 5.31 |

of 10,000 Plypak-equipped cars on a 36-month repack basis. Since the 36-month interval is required for mandatory air brake cleaning, there is little incentive to attempt to extend the repacking period further. The Pennsylvania has now set out on a program of cleaning brakes and repacking Plypak journals so cars can go on the road for three years of uninterrupted service.

MECHANIZATION RESULTS IN . . .



MOTOR-DRIVEN icers, of which there are three on the dock, can service reefers at a rate of 45 sec per car.

Less Icing Time at Laramie

Automatic icers and salt-dispensing units, operating on extended docks, speed delivery of bunker ice to eastbound reefers

Entire trains of eastbound perishables (60 to 90 cars) are now being re-iced in less than half an hour at Laramie, Wyo. The average time for re-icing individual cars is 45 sec, or only slightly more than half that formerly required.

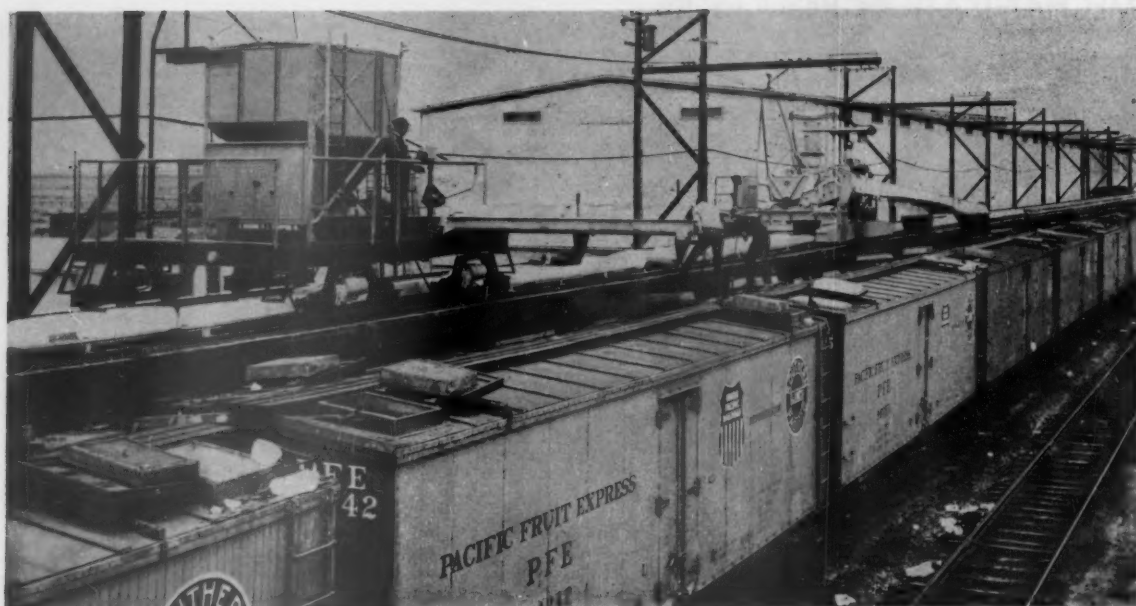
This speed-up has occurred as a result of improvements made at the icing platform of Pacific Fruit Express, which is owned jointly by the Union Pacific and the Southern Pacific. At a cost of \$660,000, the existing high-level icing dock has been extended to increase its capacity to 210 cars and the icing operation has been completely mechanized through the installation of three Preco platform icers. An additional mechanical feature has been added in the form of salt machines which, following behind the icers, place the correct amount of salt in the bunkers to obtain the desired temperature.

The icing machines and the salt-dispensing units move on 20-lb rails laid along the edges of the platform. They straddle the longitudinal conveyors by which the 300-lb blocks of ice are delivered from an existing ice manufacturing plant having a capacity of 486 tons per day. Ice picked up from the conveyors by the ice machines is chopped into pieces 50 lb or smaller in size, which are delivered through chutes to the ice bunkers of the cars.

The ice machines are powered by 7½-hp motors which obtain power from a 440-watt catenary system.



INFORMATION on incoming trains to be iced is received by radio. Homer Whitlock, plant manager of the PFE icing plant at Laramie, is here shown at the controls of one of the new icing machines.



SALT DISPENSERS are the latest mechanized aid for icing platforms. Here salt machine (left) moves along behind one of the three automatic icers.



PRODUCE TRAIN moves into position for icing. In preparation for its arrival a supply of 300-lb ice cakes is in readiness on the conveyors for delivery to the cars by the icing machines.

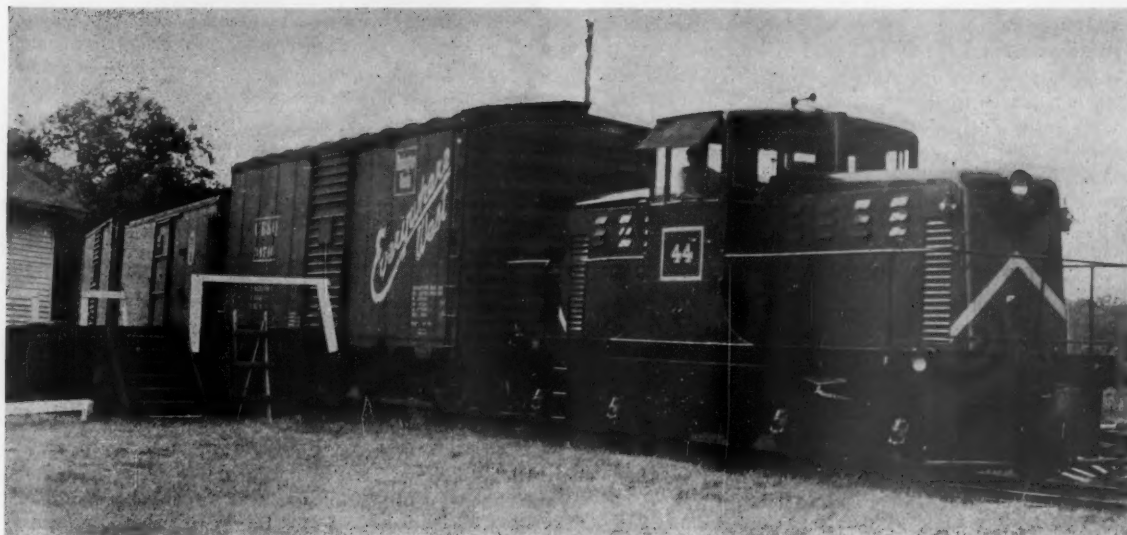
The salt machines are also electrically operated. Both types of machines are each operated by one man.

Following directly behind each icing machine two men with bars chop up any ice pieces that may be protruding above the bunker hatches. After the salt has been applied a final follow-up man closes and battens the hatches.

A control tower at one end of the icing dock has instantaneous control over the entire icing operation by means of two-way radio and public address systems.

Two 105-car trains can be handled simultaneously by the extended icing dock. When long trains are being serviced all three of the automatic icers, with their individual salt dispensing units, may be working on the same train.

The automatic installation is currently running full blast during the peak July to September shipping season. More than 800 tons of ice per day are being used to insure fresh, crisp produce for housewives in the eastern states.



What About the "Fringe" Railroad?

—An Editorial Discussion

On the one hand, there is the so-called "standard" railway—which the brotherhoods, the states and local communities treat as a limitless source of taxes, employment and benefits.

On the other hand, there is the "short line"—which usually manages somehow to convince these same parties that it is strictly a business enterprise, and that it better be treated so, or it won't be around much longer. There exists no precise definition of the short line but, in general, it may be said to be a railroad which operates in a freer climate than a "standard" property.

There is abundant evidence that freedom for the short line has preserved for many communities and sections of the country the benefits of railroad service. Not the least of these are the measurable pressures which mere existence of the railroad exerts upon truck rates and services. (Ask any small town coal and feed merchant.) The preservation of these short lines has also helped every railroad in the country, by keeping on rails traffic which otherwise would move through to destination by truck.

A number of these short lines, in addition to solving the problem of survival, have also found how to make money. Some of their income accounts are more than respectable. These successful operations are all the more noteworthy because, in so many cases, they represent properties which, under standard railroad operation, were hopelessly unprofitable.

Between and Betwixt

There are an increasing number of railroads which lie in the twilight zone between the standard road and the short line—roads, which, because they are more than a feeder line, or take in revenues considerably above those

commonly attributed to a short line, cannot obtain the freedom a short line enjoys. The number of these marginal railroads is increasing as the railroads' share of local traffic decreases—as whole sections change their economic status from heavy industry to light industry, for example, or as agricultural products shift from rail movement to truck (milk, for example). Many a railroad which formerly could exist under the load of "standard" burdens has moved into the class of those roads which cannot.

Usually the management recognizes at once that "it is time for a change." Sometimes it does not—or at least it does not dare to.

The real problem comes from the labor organizations, local communities and state bodies which fail to recognize that the only means by which the road can be preserved is for each vested interest to surrender its right to collect tribute.

A Hopeless Bankrupt

A case in point is the 541-mile New York, Ontario & Western, which has been in bankruptcy proceedings since 1937. After numerous fruitless efforts to get the property sold, the trustee has now before the ICC a practical plan of reorganization which calls for the sale of the road for \$4.6 million to S. M. Pinsky Associates, Inc.—hearings on which were recently completed in New York.

Mr. Pinsky is a successful operator of four short line railroads*—three of which were formerly segments or branches of trunk line railroads, slated for abandon-

*Hoosac Tunnel & Wilmington, Concord & Claremont, Saratoga & Schuylerville, and Sanford & Eastern.

ment, but preserved and put in the black by Mr. Pinsly.

In no year since the O&W filed for bankruptcy has it been able to earn its operating expenses and taxes. Even when it managed to show a small net railway operating income in the war years 1942-43, that income was immediately transformed into a deficit by a raise of wages to include the most recent national increase. These deficits have been suffered despite the fact that the trustees of the property have husbanded the road's resources with parsimony and have diligently sought additional sources of traffic. For example, during the last war, the road published independently a low commodity rate on newsprint which was forced to move via inland waters and rail from Canadian sources to the New York area because of enemy submarines in the Atlantic ocean. Immediately after the end of the war this traffic reverted to the normal ocean routes.

Yet, as the years proceed, the deficits grow worse. Operation of the property as a "standard" road appears definitely impossible for the future.

What Makes the Difference?

Obviously, in the face of this experience, Mr. Pinsly and his associates plan to operate the road on other than a "standard" basis. Otherwise he would not throw \$4.6 million in a hopeless venture. Under the terms of the sale plan, he is committed to operate the main line (Cornwall, N.Y., to Oswego, Rome and Utica and Scranton, Pa.) for at least 10 years.

The net scrap value of the O&W is not more than \$2,100,000, and even this is likely a high figure when the cost of dismantling and moving a railroad located in remote country districts is taken into account. Furthermore, anybody seeking to scrap the entire O&W faces the necessity for moving the rails at about 400 highway grade crossings and 68 bridge crossing locations and, by state law, restoring a highway pavement equal in quality to that on either side of the crossing.

It must be inferred, therefore, that Mr. Pinsly hopes to turn the O&W into a successful business enterprise by putting its operation on a basis generally similar to that which has proved successful on the four roads he now operates.

Not "Standard" in Revenues

The O&W is classed as a "standard" road today. Even though its employees have not received the latest wage increases granted on a national basis, they nevertheless operate under standard working rules and all of the burdensome restrictions which those rules entail. The effect of standard working arrangements may be seen in magnified form on the O&W—a study of which leads to the inescapable conclusion that standard rules cannot be made to work when traffic volume has fallen below a critical point.

The O&W was never a well-located railroad and has been in financial difficulty on numerous occasions since it was opened in 1869. However, by the construction of a line entering the anthracite coal fields at Scranton in 1890, the road's management was able to show reasonably healthy growth and earnings through its share of the total anthracite traffic moving. This device lost its potency in 1936, when the mines which gave the O&W

its major traffic became exhausted and unable to compete, any longer, with other producers. Since that time, the O&W has had to support itself upon overhead traffic moving to and from New England and points west—every pound of which must be intensively solicited and the speedy movement of which militates against maximum efficiency in the use of crews and power.

Serious Trouble

In 1954 revenue tons moved by the O&W were only 32% of what they had been in 1936, in the depth of the depression.

Yet, in 1954, the total wage bill of the O&W was only slightly below what it was in 1936. Wages now consume 76% of the O&W's gross. It is said in the railroad business that if wages rise above 60% of revenues, you are in serious trouble.

Being a "standard" road also brings other obligations which are insupportable for a road in the position of the O&W.

This bankrupt line, for example, spends more than \$215,000 a year in wages for crossing watchmen—a sum which is nearly 4% of its 1954 gross. Expenses of this magnitude are incurred because the road has been unsuccessful in getting communities to go along with the closure of certain crossings and to relax ordinances requiring perpetual attendance. It is doing its best to cut the watchmen's wage bill by installing automatic gates (the annual return on which is more than 50%), but it lacks the funds and credit to do more than scratch the surface in this field.

Local taxation is a heavy burden on the O&W. Repeated meetings with authorities in local communities throughout the 18-year bankruptcy proceedings have failed to produce more than a token recognition by local communities that the taxation of the rights-of-way of weak roads is unjustifiable, when they have to compete with free highways. The states of Pennsylvania, New York and New Jersey have also insisted upon their pound of flesh for franchise and utility taxes—which are based not upon net income but either upon gross, or worse, upon mere existence of a corporation property.

State regulatory commissions must also share the blame for continuing undue burdens on the O&W. Ever since 1937 successive trustees have sought to discontinue agency stations, at points where local business hardly paid the wages of the agent and the maintenance of the station building.

Even though passenger service was discontinued two years ago and had been operated "summers only" since 1946, the Public Service Commission of New York has refused to budge on most of the station discontinuance requests by the railroad's trustee.

When Is Short Short?

When a railroad is small enough to be classed as a short line, the public, the employees and regulatory and taxing bodies generally take an interest in its continued existence. They allow it to behave like any other business. Why, then, cannot these same parties in interest recognize that the way to preserve for themselves the "fringe" railroads, like the O&W, is to accord their present managers like freedom?



CLERK IN YARD OFFICE uses Teletype to transmit switch list in page form and simultaneously. . . .



IN THE CONTROL TOWER a Teletype perforator punches track numbers in the tape and . . .

Teletype Tape Controls Switches

... IN N&W CLASSIFICATION YARD

Modernization program includes reduction of grade on classification tracks, re-grouping of tracks to reduce number of retarders, and installation of automatic switching controls on Teletype tape punched for entire train to be humped

By J. G. KARLET

Assistant Superintendent Signals
Norfolk & Western

A saving of 45 min for each car passing through the yard; less damage to cars; and a reduction in loss of coal lading—these are some of the benefits of the recent reconstruction of a 35-track gravity classification yard on the Norfolk & Western at Portsmouth, Ohio.

This yard is used exclusively for classifying loaded coal cars. Each car is weighed separately, and therefore each cut consists of one car only. Under favorable conditions, cars may be classified at the rate of five per minute. At present approximately 40,000 cars per month are being weighed and classified with the hump normally in operation two 8-hour shifts, 6 days per week.

Lower Grade on Yard Tracks

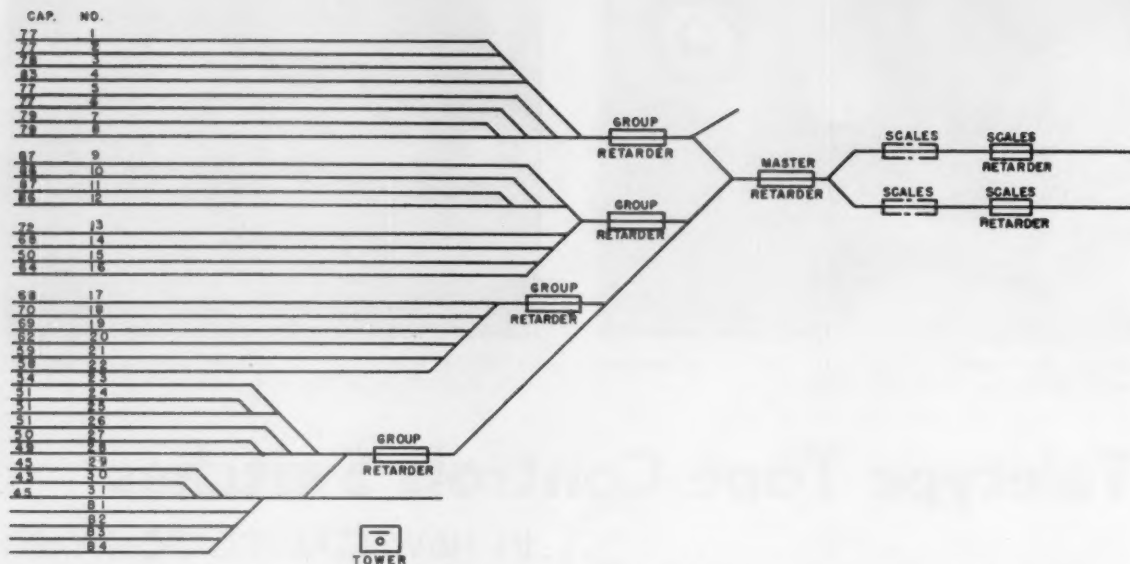
The recent program of modernization in this yard included several related phases. As built in 1928, the grade on the classification tracks was 0.22 per cent. Because of various factors through the years, there was considerable variation between grades on the different tracks, so that inability to control the coupling speed sometimes resulted in excessive damage to equipment and loss of coal lading. Engineering studies and acceleration tests indicated that the grade on the classification tracks should be revised to 0.15 per cent, which gives a non-accelerating speed of about 4 mph for single-cut loaded coal cars.

At Portsmouth, two tracks extend from the 13-track receiving yard up to the hump, with crossovers on the receiving yard side of the apex. Each hump track has its own scale and scale retarder. Due to excessive track



THE POWER SWITCHES are controlled automatically according to the Teletype tape, to route cars to proper classification tracks.

curvature, when humping operations were being conducted from the north receiving track lead over the south scales, or vice versa, the couplers often were to the right or left of center position when the cuts were made by the pin puller. This resulted in numerous non-couplings, and damage to couplers when an out-of-position coupler engaged another on the straight classification body tracks. To eliminate this trouble, the crossovers were moved back to a new location near the receiving yard, curvature reduced and the two scale tracks were connected by a turnout to one track leading through one master retarder down the hump.



NEW TRACK GROUP LAYOUT requires only 397 ft of retarders at 7 locations compared with 943 ft at 26 locations in old arrangement.

In revising the grade, the layout was changed from the previous ladder arrangement to a modern group plan including four groups of tracks. The 1928 installation, applied to the ladder arrangement, required 943 ft of retarders at 26 separate locations. As applied to the new group layout, only 397 ft of double-rail retarders are required at a total of only seven locations. The retarders which had seen the least service were rebuilt by N&W forces and re-installed as required for the new track group layout. Also the switch machines were rebuilt and re-installed. These retarders and switch machines are the electropneumatic type made by the Union Switch & Signal Division of the Westinghouse Air Brake Company.

One Tower Instead of Two

In the old layout, there were three control machines in two towers. Primary retardation and routing to various leads were controlled by an operator in charge of a machine in Tower A, near the apex of the hump. Final retardation and control of switches in the remainder of the yard were handled by two operators at two control machines in Tower B, located near the entering end of the classification tracks. With the completion of the modernization, these two towers were removed, and one new tower was built on the south side of the yard opposite the final retarders.

The switches are now controlled automatically, as explained below in detail, and the master retarder is equipped for automatic speed control. Thus the operator in charge of the new modern machine in the one new tower ordinarily controls manually only the four group retarders and two scales' retarders which are occasionally used to secure slack when cuts are missed.

The modernization of this yard included the installation of automatic controls to line up switches to route cars to their proper classification tracks, this automatic switching being similar, in part, to that installed previously at some yards on other railroads. The new fea-

ture of this N&W installation is its method of using a Teletype tape to select the switching controls automatically as the cut is being humped. Thus the automatic switching controls are initiated by the tape for a whole string of cars, rather than, as in conventional practice, by manual selection of push buttons for each individual classification as the string of cars is being pushed over the hump.

The writer of this article and James M. Hesser, assistant superintendent telegraph, N&W, together with engineers of the Union Switch & Signal Division of Westinghouse Air Brake Company, developed this automatic tape system for use with automatic switching. Patent rights have been assigned to Union Switch & Signal which is prepared to furnish the system to railroads. The special equipment, including the automatic switching apparatus, speed control on the master retarder, the new control machine in the tower, automatic switching apparatus and detector circuit materials, as installed at Portsmouth, were furnished by that company.

How Tape Control Works

Working from a penciled list of cars in a train just arrived, a clerk in the yard office uses a sending Teletype, with keyboard, to type a switch list. As he does this, the list is simultaneously transmitted to page printers in the assistant yardmaster's office and in the control tower. The switch list includes various items of identifying information about each car. The second item listed for each car is the number of the classification track to which it is to be routed.

Just prior to the time the page printer carriage (in the control tower) reaches the position where the track number is to be received, a tape reperforator (also in the control tower) is cut in service so that as the track number is printed on the printer a series of perforations are punched in a tape.

During this period an indication lamp is lighted on the yard clerk's sending machine so that he will know

that he can then type the track number in the succeeding seven spaces.

When the switch list and tape have been received and punched for an entire cut of 100 cars or more, the control operator inserts the punched tape into a modified transmitter-distributor which searches for and "reads" the punched holes, and feeds this information in the form of electrical impulses to a decoding unit. The decoding unit interprets the impulses and in turn controls the automatic switching system.

The automatic switching system at Portsmouth yard is similar to conventional automatic switching systems with five storages and associated indicators.

The Teletype system automatically keeps the storage banks filled at all times with information contained on the tape.

Cancellation and Emergency Selection

An interesting feature of the decoding apparatus is a cancellation feature which permits the yard clerk to correct typographical errors in track selections by operation of the X key on the Teletype. Each track selection consists of characters representing two digits, and arrangements are provided so that single digits or letter characters are automatically rejected. The possibility of the apparatus erroneously selecting the last digit of one classification and the first digit of the next following is also automatically precluded.

A feature has been added to the control machine which might find application at other modern yards. When the automatic switching apparatus was placed in service it developed that frequently a car passing over the apex or the scales was found to require special routing other than that already set up on the tape. For instance, a car might be diverted because the scales could not prop-

erly weigh it, or because a defect was noted in a car when passing the apex.

Originally when such cars were to be rerouted, the operator depressed the "General Cancel" push button to clear the storage banks and stop the tape. The hold track number was then selected to replace the original number which had been cancelled from "A" bank. The original track numbers were then manually restored to the "B," "C," "D" and "E" storage banks. The "Tape Start" button was then operated to start the transmitter-distributor, the tape then continuing its selection in proper synchronization. This procedure was rather involved, and frequently the car to be diverted was so closely approaching the initial track section that time did not permit proper action, which resulted in misrouting and delay to humping operations.

After considering the problem, circuit modifications were made, and an auxiliary push button was added to the control machine. When rerouting is indicated, under circumstances such as those described, the operator (at the proper time) merely depresses the special push button, which through circuit action substitutes the hold track number for that identification appearing in the "A" bank.

The radar speed measuring devices, located between the first and second lead and between the second and third lead just west of the group retarders, are similar to those in service at other yards. However, the customary indications displayed by these devices have been supplemented by a series of three lights in two groups installed on the control machine and arranged to display a red indication for a car moving at excessive speed, amber for medium speed, and green when movement approximates 6 mph. We believe that the operator may observe the colored lights with less distraction than that required for a voltmeter type speed indicator.

PULLMAN-STANDARD'S PS-4...

Flat Car Is Standardized

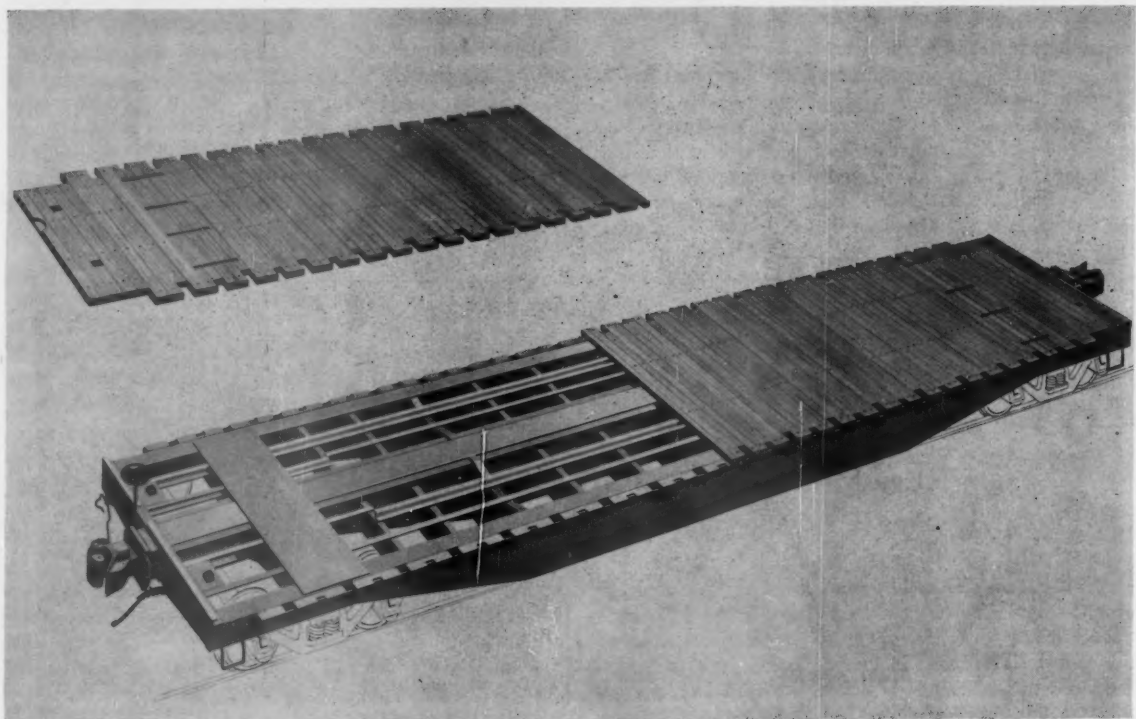
Western Pacific gets first 50 of new welded cars which can be fitted for various services in either 50-ton or 70-ton capacities

Pullman-Standard has just announced the introduction of a new flat car. The PS-4 is the latest in the company's line of standardized freight cars. An exhibit featuring this new design, fourth in the producer's series of mass-produced standard cars, is being displayed by the company at the Allied Railway Supply show at Chicago's Sherman Hotel this week. Almost ten years ago, Pullman-Standard began its standardized freight car concept by offering the PS-1 box car. To date, nearly 75,000 of these cars have been built for 67 railroads and four departments of the government. Expanding its standardization policy, the company subsequently designed and built the PS-2 covered hopper and more recently the PS-3 open-top hopper.

The new PS-4 flat car is offered in lengths from 53-ft 6-in., to 60-ft in both 50- and 70-ton capacity. In addi-

tion, the builder can equip this car with bulkheads, or can build a 75-ft version with hold downs and accessories for "piggyback" service. For tie-down security the PS-4 features a minimum of 18 stake pockets per side located on 2-ft 9-in. centers. A banding iron anchor is located between each stake pocket. This provides a total of 74 anchors per car. All stake pockets and anchors are rounded to prevent creasing or breaking of tie-down materials.

The new car meets and exceeds all AAR strength requirements. An all-welded design, rivets are used only for safety appliances, center plates, side bearings and draft gear carrier. The welded design gives added strength without weight penalty and helps keep corrosion at a minimum. Decking on the PS-4 is of preservative-treated yellow pine, 2 $\frac{3}{4}$ in. thick. Floor boards are se-



ALL-WELDED FRAME of this standard flat car carries heavy decking. There are both stake pockets and lading

cured to underframe members with flat head carriage bolts and with floor clips at side stake pockets and lading anchor positions. This arrangement helps keep decking flat and straight, prevents curling and skewing. The width of 10 ft 6 in. allows staggering of such lading as farm implements and permits greater unit capacity.

According to Pullman-Standard, the PS-4 standard-

anchors along the sides, and stake pockets at the ends. Western Pacific began to get its cars in June.

ized flat car has been designed to provide rugged, dependable service with a minimum of maintenance and upkeep. Although introduction of the car has just been announced, 50 have already been delivered to the Western Pacific and are now in service. Of the 56-ft length, ten of these PS-4's are being used for piggyback, 20 for wallboard loading, and 20 for general service.



This sectional view of the FR-16 Rubber Draft Gear illustrates the 16 rubber units of patented construction. The bonding of the two metal plates in each unit to the rubber provides capacity and absorption without damage to the rubber.



Supply Trade

(Continued from page 9)

York Central, is now associated with the **Chromium Corporation of America** as manager of railroad sales for the Cleveland plant.

Ervin Seltzer, manufacturing services manager, Stokes Molded Products division, **Electric Storage Battery Company**, at Trenton, N.J., has been transferred to the company's Exide Industrial division at Philadelphia, and appointed manager of industrial engineering.

Frank J. Bader, district manager, **Combustion Engineering, Inc.**, at San Francisco, has been appointed assistant general sales manager at New York, succeeding **Carmin J. Grossi**, appointed manager of the export division. **Herman C. Reichard** has been transferred from the Kansas City sales office to succeed Mr. Bader at San Francisco.

B. E. Phillips, district sales manager, **Clark Equipment Company**, at New York, has been named assistant sales manager of the Industrial Truck division, at Battle Creek, Mich.

Hyman-Michaels Company has moved its general offices from 122



WILLIAM G. GRAY, who has been appointed vice-president, railway sales, **Miller Lubricator Company**, at Chicago. He had previously been manager of railroad sales, **Pyle National Company**.

South Michigan avenue to 108 North State street, Chicago.

Norman A. Price, director of sales, **Colson Corporation**, has been named, also, vice-president and a director.

Paul F. Pardonner, assistant manager of the Detroit sales district of **Armco Steel Corporation**, has been

named manager, succeeding **R. L. Shugg**, who will continue with the company in a consulting capacity.

John Rundt, who has been with **Timken Roller Bearing Company** since 1935 in various engineering capacities, has been appointed chief engineer, division of research and development.

Equipment & Supplies

FREIGHT CARS

Pakistan Inquiring for Broad-Gage Ballast Cars

The Ministry of Communications, Railway Division, government of Pakistan, has requested bids for supply of 50 5½-ft-gage ballast cars, according to *Foreign Commerce Weekly*. A copy of the tender notice and specifications may be borrowed from the Commercial Intelligence Division, Bureau of Foreign Commerce, U.S. Department of Commerce, Washington 25, D.C.

The **Atlanta & West Point** and the **Western of Alabama** expect to order, from Pullman-Standard, 100 PS-1 box cars, of which half will be

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40½-ft long and half will be 50½-ft long, at a cost of \$710,000. Delivery, it is expected, will be made late in the second quarter of 1956. The roads have ordered 50 70-ton rebuilt gondola cars from the U.S. Railway Equipment Company at a cost of \$173,000 for delivery in October. Also, the roads are converting, in their own shops, 100 box cars into wood rack cars.

The **Chicago & Eastern Illinois** has ordered 100 50-ton box cars from its own shops. Delivery of the cars, which will cost approximately \$10,000 each, is to be made during the second quarter of 1956.

Directors of the **Missouri-Kansas-Texas** have authorized purchase of 75 70-ton covered hopper cars from Pullman-Standard at an approximate cost of \$600,000. Delivery of the cars is scheduled for the first quarter of 1956.

The **New Haven** has ordered 500 50½-ft 50-ton roller-bearing-equipped box cars from Pullman-Standard. The road's intention to purchase this equipment, at a cost of \$4,000,000, was reported in *Railway Age*, July 25, page 8.

The **Santa Fe** has increased by 50 units a previous order for 150 mechanical refrigerator cars to be built in its own shops (*Railway Age*, February 21, page 8). The 200 50-ft cars will be insulated for transporting frozen foods at temperatures of zero or lower. The road expects to complete the original 150 cars this year, and the additional 50 early in 1956.

The **Soo Line** will construct in its own shops 10 70-ton 65-ft drop-end gondola cars and 30 70-ton covered hopper cars, for delivery during the first quarter of 1956.

PASSENGER CARS

Directors of the **Missouri-Kansas-Texas** have authorized purchase of one rail diesel car (RDC-3) from the Budd Company at an approximate cost of \$170,000. The car will operate between Denison, Tex., and Wichita Falls.

LOCOMOTIVES

The **Santa Fe** has ordered 46 diesel locomotive units. Electro-Motive will build nine 4-unit 7,000-hp freight locomotives for delivery in the second quarter of 1956; and Alco Products will build ten 2,250-hp road-switchers for delivery during September and October.

Abandonments

Authorizations

CHICAGO & NORTH WESTERN.—To abandon a 19.4-mile branch between Moline, Iowa, and Sergeant Bluff; and a 33.3-mile branch between Gary, S.D., and Watertown Junction.

CLINCHFIELD.—To abandon operation under trackage rights over an 8.5-mile line of the Norfolk & Western from St. Paul, Va., to Carbo. The ICC granted the authorization at the request of the N&W over the protest of the Clinchfield, operation over the line having been discontinued since 1940 and a trackage rights agreement having been terminated in 1949.

ILLINOIS CENTRAL.—To abandon operation of a 14-mile segment of line from Shreveport, La., to the Texas-Louisiana boundary. The IC leases the line from the Vicksburg, Shreveport & Pacific, which was authorized to abandon the line itself. The Louisiana & Arkansas previously was authorized to abandon operation over this line under trackage rights in connection with its new Dallas-New Orleans "cutoff" (*Railway Age*, January 10, page 192).

NEW YORK CENTRAL.—To abandon a 15.5-mile segment of line from Canastota, N.Y., to Chenango Junction, together with a 0.3-mile connection between that segment and a parallel line at Kirkville; also to abandon a 0.5-mile segment at Belle Isle.

Financial

Grand Trunk Western.—*Merger of Subsidiary.*—The ICC has approved the merger of the Muskegon Railway & Navigation Co. into the Grand Trunk (*Railway Age*, January 10, page 16).

New Jersey & New York.—*Reorganization.*—An ICC examiner, Harvey H. Wilkinson, has recommended that the commission adopt a plan under which the Erie would acquire all the properties of the New Jersey & New York. It is a modification of a plan approved by the ICC in 1953 but rejected by the U.S. District Court in New Jersey in 1954. The examiner recommends that the commission find that the NJ&NY properties have a value to the Erie of \$3 million. The Erie would be required to cancel its claims for charges for operation of the NJ&NY (amounting to \$3,664,508) and to pay the debtor's trustee \$720,959 for payment of taxes (\$147,321 to the State of New Jersey and \$725 to the State of New York) and mortgage lien (\$572,913) to be held in escrow by the trustee. The sum held by the trustee, coupled with \$76,803 held in a special cash reserve fund, would be distributed as follows: \$334,900 to first mortgage bondholders; \$816 to second mortgage bondholders; and \$314,000 to general mortgage bondholders. Issuance of an order by the commission, upon application by the Erie to acquire the NJ&NY properties, would be held up pending court approval of the plan.


New York Central.—*Employees' Stock Bonuses.*—Seventeen NYC employees will receive stock bonuses under the road's new incentive plan (*Railway Age*, June 20, page 90). In announcing the awards, first made



EIGHT RAILROADS contributed 14 passenger and freight cars, plus a caboose, to a railroad exhibit staged by the Michigan Railroads Association in connection with the recent Farm Mechanization Centennial sponsored by Michigan State University at East Lansing. Rolling stock was furnished by the New York Central; Pennsylvania; Grand Trunk Western; Chesapeake & Ohio; Wabash; Ann Arbor; Detroit, Toledo & Ironton;



and the Detroit & Mackinac. Thousands of visitors, some of whom are shown above, took advantage of the opportunity to inspect the latest in railroad equipment. The caboose was the public's favorite.



*We've been working
on the railroad
all the live long day**



**16,500 of them!*

FIFTY-FIVE YEARS of building railroad bridges is some record, isn't it? In fact, there aren't many veteran railroaders who have spent more time on the job than American Bridge!

And, believe us, we have learned a lot about the engineering and maintenance problems of the "roads" over the years.

For one thing, the matter of getting a bridge open on time is just as important to American Bridge crewmen as schedules are to the men who run your trains.

If your system is one of the many we have served, you know our work. *You know how completely depend-*

able we are. If, on the other hand, you have never enjoyed the satisfying relief of having American Bridge handle your bridge building problems, we suggest that you *make a note now* to discuss your needs with us whenever they arise.

If, as they say, railroading gets in your blood, then American Bridge must surely be saturated with it. For there has seldom been a day when we have not been working on a railroad project somewhere.

**based on approximately 300 working days a year since 1900, though predecessor companies doubtless built hundreds of bridges even earlier.*

AMERICAN BRIDGE DIVISION, UNITED STATES STEEL CORPORATION, GENERAL OFFICES: 525 WILLIAM PENN PLACE, PITTSBURGH, PA.

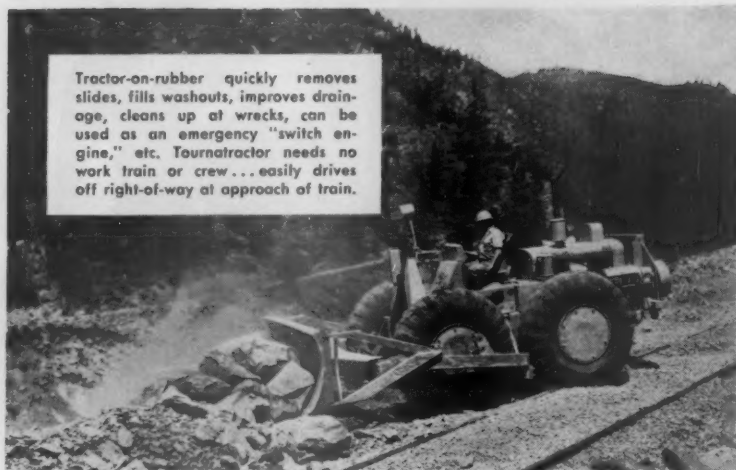
Contracting Offices in: AMBRIDGE • ATLANTA • BALTIMORE • BIRMINGHAM • BOSTON • CHICAGO • CINCINNATI • CLEVELAND • DALLAS • DENVER • DETROIT • ELMIRA • GARY
MEMPHIS • MINNEAPOLIS • NEW YORK • PHILADELPHIA • PITTSBURGH • PORTLAND, ORE. • ROANOKE • ST. LOUIS • SAN FRANCISCO • TRENTON UNITED STATES STEEL EXPORT COMPANY, NEW YORK

AMERICAN BRIDGE



UNITED STATES STEEL

Tractor-on-rubber quickly removes slides, fills washouts, improves drainage, cleans up at wrecks, can be used as an emergency "switch engine," etc. Tournatractor needs no work train or crew... easily drives off right-of-way at approach of train.



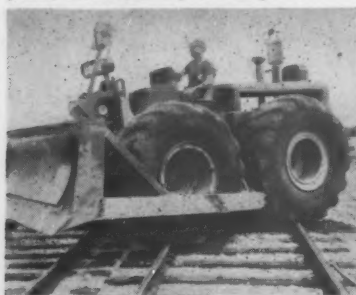
At a moment's notice...

"RUNS" to job under its own power

In less than 4 minutes, Tournatractor travels a mile under its own power to handle any railroad maintenance job in your yard or along the right-of-way. This 19 mph tractor does not damage tracks or switches, does not trip automatic block signals. It handles a wide variety of jobs quickly—cleans drainage ditches, removes slides, cuts down banks, fills washouts, reinforces causeways and bridge approaches. 1 man and 1 machine can do many of these and similar maintenance tasks in a single day.

Cuts dozing time in half. Tournatractor not only gets to jobs in less time than crawler-tractors... it also finishes them sooner. Four speeds forward to 19 mph and two speeds reverse to 8 mph help you complete

Tournatractor drives anywhere without planking. It follows the track or travels by highway. Tires do not damage ties, rail spikes and plates, switches, or trip block signals.



most tractor assignments in as little as half the time that it takes the average crawler.

Compare Tournatractor's advantages with those of other tractors used in your division. You'll see why major railroads and dirtmovers are adding modern Tournatractors to their equipment fleets.

Tournatractor—Trademark T-781-RR-z

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802 Cary Drive

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RAILROAD SALES DIVISION
LeTourneau-Westinghouse Company
PEORIA, ILLINOIS
A Subsidiary of Westinghouse Air Brake Company

under the plan, Alfred E. Perlman, NYC president, said, "After earnings for the year have been determined and the amount available for this plan is definitely known, additional bonus selections will be made. By that time, too, as progress is made on other projects under way on the railroad more Central employees can expect to receive bonus awards."

Staten Island Rapid Transit.—Would Lease Line to New York.—The SIRT, a Baltimore & Ohio subsidiary, has reached a tentative agreement with New York City under which it would lease properties to the city for an annual rental exactly equal to the yearly minimum tax bill, now \$364,000. Management of operations between St. George and Tottenville would be retained on a profit or loss basis. The lease would be for an eight-to ten-year period.

Wellsville, Addison & Galetton.—Purchase of B&O Line.—An ICC examiner, John S. Prichard, has recommended approval of this road's application to buy for \$250,000 a line of the Baltimore & Ohio extending from Addison, N. Y., to Galetton, Pa., and then to Wellsville, N.Y., a total of 97.2 miles (*Railway Age*, December 27, 1954, page 14.)

White City Terminal.—Stock Issue.—This road has applied to the ICC for authority to issue 10,000 shares of no-par common stock of a stated value of \$25 per share. The stock would be issued to the White City Realty Company in exchange for the rail facilities and properties for which the road obtained operating rights earlier this year (*Railway Age*, February 21, page 16).

Dividends Declared

DELAWARE & HUDSON.—\$1, quarterly, payable September 28 to holders of record September 12.

ERIE.—37½¢, quarterly, payable September 30 to holders of record September 9.

MINNEAPOLIS & ST. LOUIS.—35¢, quarterly payable September 23 to holders of record September 13.

MISSOURI-KANSAS-TEXAS.—7% preferred, 50¢, payable October 3 to holders of record September 16.

WABASH.—\$1, payable September 23 to holders of record September 16.

Security Price Averages

| | Sept. 6 | Prev. Week | Last Year |
|---|------------|---------------|--------------|
| Average price of 20 representative railway stocks | 96.27 | 94.49 | 68.89 |
| Average price of 20 representative railway bonds | 98.42 | 97.96 | 96.78 |

Applications

READING.—To assume liability for \$4,200,000 of series X equipment trust certificates to finance in part six diesel-electric road-switching units and 700 55-ton hopper cars expected to cost a total of \$5,250,000. The locomotives would be purchased from Fairbanks, Morse & Co.—four at an estimated unit cost of \$242,064 and two at \$237,414; and the hopper cars from Bethlehem Steel Company for \$5,747 each. The

(Continued on page 66)

Here's Long Life!



A.T. & S.F. Flat Car
53' 6" long—50-ton capacity

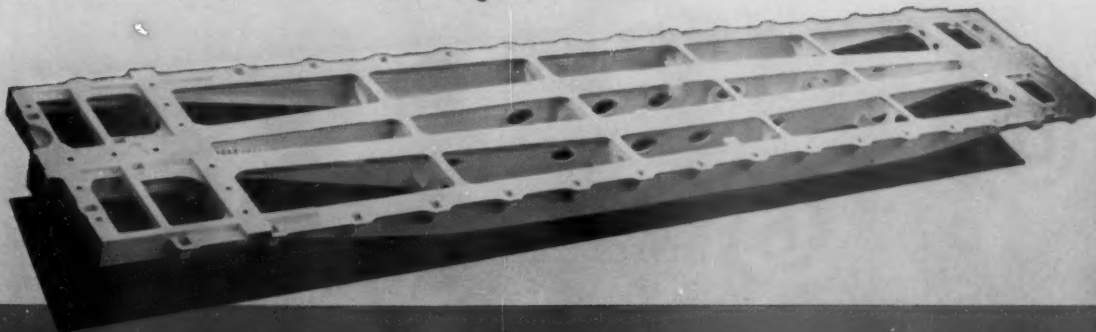
New Santa Fe Flat Cars With One-Piece Underframes are BUILT TO LAST!

Modern railroading is particularly tough on freight cars and flat cars are often called the workhorse on rails. The backbone and foundation of the flat car is the underframe. COMMONWEALTH One-Piece Cast Steel Underframes combine great strength with minimum weight and provide *maintenance free* performance.

Other advantages of COMMONWEALTH Underframes include unusually strong draft sills, draft gear pockets, striking castings and bolsters — flared center sills and wide top members providing better support for decking and loads — cast steel assures highest resistance to corrosion.

Thousands of flat cars with COMMONWEALTH Cast Steel Underframes — in service for years — prove these facts. Build your flat cars to last longer. Specify COMMONWEALTH Underframes. Write for information and standard designs.

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GENERAL STEEL CASTINGS

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STEAM HEAT CONNECTIONS



**"Still
the
Simplest"**

Here's Why Barco Leads!

NOW, as always, Barco Steam Heat Connections give you season-to-season service without worry about maintenance. Users have found they can depend on Barco connections to stand up and stay tight!

This means a **BIG SAVING** in maintenance costs. *A comparative check of gasket consumption in your car yards can be very enlightening.* **MAKE THIS CHECK**—others have and now use Barco.



THE GASKETS LAST!

- Not necessary to provide facilities for maintenance at way points.
- No changing of gaskets; no storing of gaskets at way points.

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Reports from Users

Longer Service . . .

"Tests have proved that Barco Connectors withstand diesel dry steam better and give longer service. Annual removal and repairs program has proved Barco superior."

Less Maintenance . . .

"We are installing Barco connections as rapidly as possible because they require so much less maintenance."

Makes Test . . .

"We started a test of Barco Connections on our road. A year later we ordered another sixty and only one was removed in a year."

Full Year Without Attention . . .

"Barco 2½" Connections on Diesel locomotives are checked in the fall and, barring accidents, they go the full year without attention."

2 Years without Gasket Change . . .

"Barco Steam Heat Connections on our streamliner have gone more than two years without a gasket change."

PROVEN 3-COAT PROTECTION IN ONE APPLICATION WITH

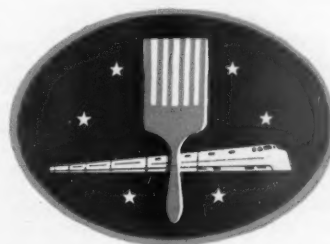
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RED FREIGHT CAR FINISH

X21 has in the past seven years built up a record with leading railroads and car builders for lower initial costs and prolonged wear. See for yourself the budget economy of X21, its longer protection on your cars, and its one-coat speed of application.

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319 WEST 37th STREET, CHICAGO 9, ILLINOIS
A DIVISION OF SEARS, ROEBUCK & CO.

Financial

(Continued from page 62)

certificates would mature in 30 semi-annual installments of \$140,000 each, beginning April 1, 1956. They would be sold by competitive bidding, the interest rate to be determined by such bidding.

UNION.—To issue a \$3,000,000 note to its parent company, United States Steel Corporation, to evidence advances in that amount. The advances would be used, with treasury cash, to redeem, on October 1, bonds of the Monongahela Southern, including \$3,000,000 of first mortgage bonds and \$2,500,000 of general mortgage bonds.

SOUTHERN PACIFIC.—To assume liability for \$9,390,000 of equipment trust certificates to finance in part the following equipment at an estimated total cost of \$12,390,753.

| Description and Builder | Estimated Unit Cost |
|--|---------------------|
| 14 1,400-hp diesel-electric freight units (Alco Products Inc.) .. | \$199,666 |
| 12 900-hp diesel-electric freight units (Alco) | 100,466 |
| 1 900-hp diesel-electric freight unit (Alco) | 97,657 |
| 7 1,200-hp diesel-electric switchers (Fairbanks, Morse & Co.) | 109,682 |
| 2 1,200-hp diesel-electric switchers (Fairbanks, Morse) | 108,437 |
| 1 660-hp diesel-electric freight unit (General Electric Company) .. | 87,102 |
| 656 50-ton double-door box cars (Southern Pacific Equipment Company) | 7,665 |
| 308 50-ton double-door box cars (Southern Pacific) | 7,730 |
| 1 50-ton single-door box car (Southern Pacific) | 11,350 |

The certificates, to be dated September 1, would mature in 15 annual installments of \$626,000 each beginning March 1, 1956. They would be sold by competitive bidding with interest rates to be determined by such bidding.



LARGEST DIESEL UNIT owned by the Canadian National is accepted by engineman Ernie Kerr. G. O. Saunders, vice-president of the Canadian

Locomotive Company, is presenting the unit's forward-reverse lever to Mr. Kerr, symbolizing the transfer of ownership.

New Facilities

Santa Fe Will Enlarge Hobart Yard Facilities

The Santa Fe has announced plans for expanding its facilities at Hobart Yard, Los Angeles. Work is scheduled to begin immediately. The project will cost approximately \$750,000.

A third track will be constructed adjacent to the present two main tracks in the yard area. Signals will be arranged to permit movement on either track in either direction between Rio Hondo and Redondo Junction. Added track space will be provided in both the west and east ends of the yard.

Under the new arrangement, tracks now adjacent to main lines and being used as receiving tracks will be used as classification tracks. The tracks in the center of the yard, because of their greater length, will continue to be used for outbound trains. The most northerly tracks, now used for classification, will become receiving tracks.

F. C. Gurley, Santa Fe president, said the enlarged facilities will improve yard switching efficiency by separating the operations and reducing interference to a minimum.

Mr. Gurley indicated that space will continue to be available at Hobart yard for future expansion as required.

Canadian National.—A joint contract for work on the first 66 miles

of the new line from St. Felicien, Que., to Chibougamau has been awarded to the Therrien Construction Company and the McNamara Construction Company. Tenders had been requested in July for clearing, grading and installing culverts, trestles and bridge sub-structures on the 66-mi section from St. Felicien to Chigou-biche Lake (*Railway Age*, August 8, page 13).

Railway Officers

ATLANTA & WEST POINT—WESTERN OF ALABAMA—GEORGIA.—John P. Weisiger, assistant general freight agent at Atlanta, Ga., retired August 31 after more than 50 years of service. H. C. Tomassi and L. J. Linane have been named assistant general freight agents at Atlanta. N. H. Rodenberg, general agent at Nashville, Tenn., has been transferred to Augusta, Ga., to succeed Mr. Tomassi. J. B. Brennan, commercial agent at Macon, Ga., has been promoted to general agent there. H. E. Camp has been appointed assistant to freight traffic manager at Atlanta. Alvin F. Baird, commercial agent at Charleston, S. C., has been promoted to general agent there.

ATLANTIC COAST LINE.—M. S. Jones, Jr., trainmaster, Charleston district, at Charleston, S. C., has been appointed assistant to general super-

intendent transportation at Wilmington. N. C. J. P. Scheider has been named terminal trainmaster at Savannah, Ga., succeeding H. N. Strange, Jr., who replaces Mr. Jones at Charleston.

BALTIMORE & OHIO.—Carroll E. Morley, auditor capital expenditures at Baltimore, retired August 31, after 38 years of service.

BANGOR & AROOSTOOK.—William B. Hill, vice-president at Bangor, Me., retired September 1, after 30 years of service.

D. Keith Lilley, chief dispatcher, Northern division, at Houlton, Me., has been appointed trainmaster there, succeeding Harold C. Duffy, who recently became assistant superintendent of transportation (*Railway Age*, August 22, page 16).

BELT OF CHICAGO.—Ray Hurd, superintendent of car service, has retired after more than 46 years of service.

BURLINGTON.—R. G. Johnson, assistant superintendent, Chicago division at Chicago, has been appointed superintendent of terminals at Kansas City, Mo., succeeding the late James S. Sloan (*Railway Age*, August 29, page 43). S. J. Carbone, trainmaster, Chicago division, replaces Mr. Johnson.

CANADIAN NATIONAL.—George O. Thoresen, assistant freight traffic manager of the Canadian National—Grand Trunk at Detroit, has been promoted to freight traffic manager, sales, for U. S. lines of the CNR, succeeding

THE RACOR STUD

(Patented)

deserves your consideration because...

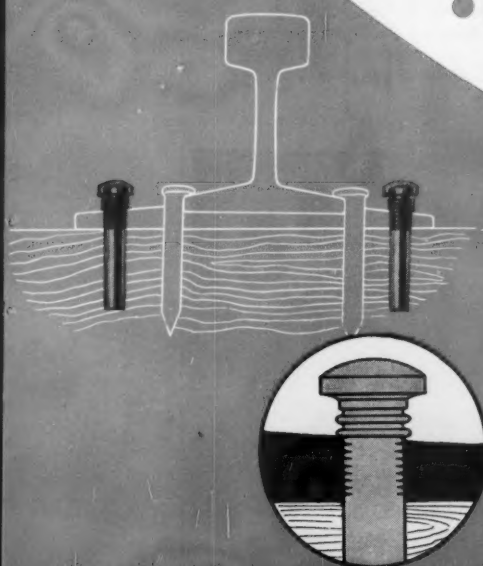
IT EXTENDS TIE LIFE

- BY REDUCING TIE ABRASION
- BY REDUCING SPIKE KILLED TIES
- BY REDUCING SPLIT TIES



IT PROVIDES STURDIER TRACK

- BY MAINTAINING BETTER LINE AND GAGE
- BY DEFERRING TIE REPLACEMENT
- BY REDUCING LABOR COSTS

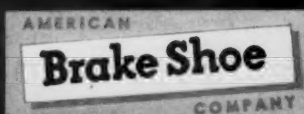


The RACOR STUD securely driven becomes integral with the tie plate and restricts lateral movement most effectively.

Conclusive tests show a reduction of over 50% in tie wear by the use of the RACOR STUDS.

Low in cost, the RACOR STUD will show a high return through material and labor savings with sturdier, smoother and safer track.

Write for prices and complete descriptive literature.



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AMERICAN BRAKE SHOE COMPANY
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Plants:

Chicago Heights, Ill.; E. St. Louis, Ill.; Buffalo,
N. Y.; Superior, Wis.; Pueblo, Colo.; Los Angeles,
Cal.; Niagara Falls, Ont., Canada.

"I'M A NICE CUSTOMER"

"I'm a nice customer. I'm the one who never complains no matter what kind of service or attention I get.

"I'll drop by a railroad ticket window and stand there while the employees behind the window talk with each other and take their time about waiting on me. If the man or woman who finally wanders over to help me is impatient, or discourteous, do I complain? No.

"When I'm trying to get off a train, loaded down with baggage and nobody offers to give me a hand; when I take a seat and find it dusty; when I ask a simple question about train connections and get a curt answer or none at all; when my train is running late and nobody will tell me why or what to expect; when my car of freight is delayed and I seem to get nothing but a brush-off on calling to ask why—do I call the railroad and report a lack of service? No, I just tolerate the situation.

"I never gripe, I never fuss, I never criticize, and I wouldn't dream of making a scene as I've seen others do.

"No, I'm the nice customer. And I'll tell you what else I am, I'm the customer who never comes back.

"That's my retaliation for getting pushed around too much. That's why I tolerate whatever you dish out to me in the station, on the phone, or on the train. I know I'm not coming back. It's far more deadly than blowing my top.

"So you say, 'Who cares if you never come back? We've got lots of customers and lots of money. We'll never miss you.' And my only answer is that a nice customer like myself, multiplied by others of my kind, can just about ruin any business. It has been done many times, and it's still being done every day. That's why I can sit back and laugh when I see you frantically spending your money on expensive advertising to get me back when you could smile, and a little better service."—*Delaware, Lackawanna & Western Magazine.*

Lawrence B. Freeman, whose appointment as general freight traffic manager, U.S. lines at Chicago, was announced in *Railway Age*, August 22. Mr. Thoresen's successor is Michael



George O. Thoresen

A. O'Brien, general freight agent of the CNR—Grand Trunk at Detroit.

Mr. Thoresen joined the Grand Trunk Western in 1911 as clerk in the commercial agent's office at Chicago. After advancing through several positions in the freight department he became assistant general freight agent at Detroit in 1943. He was appointed general freight agent in 1951 and assistant freight traffic manager a few months later.

CHESAPEAKE & OHIO.—A. C. Gibson, trainmaster at Grand Rapids, Mich., has been named terminal superintendent at Ludington, Mich. C. A. Persinger has been appointed terminal trainmaster and R. D. Hudgens, trainmaster, both at Grand Rapids. Mr. Hudgens succeeds H. Troutfetter, retired, whose headquarters were at New Buffalo, Mich.

Howard S. Bannister, traveling passenger agent, has been appointed general agent passenger department, with headquarters as before at Detroit,

succeeding Ray E. Ivory, retired after 41 years of service. W. A. Ziel, division passenger agent at Detroit, has been named general agent, passenger department, at Grand Rapids.

J. P. Donovan, freight traffic manager at San Francisco, has been appointed to the newly established position of freight traffic manager—sales at Pittsburgh, with jurisdiction over agencies at Buffalo, Cleveland, Columbus, Pittsburgh and Toledo. R. L. Schilke, assistant freight traffic manager at Detroit, succeeds Mr. Donovan as freight traffic manager at San Francisco. T. A. Keefe has been named assistant freight traffic manager at Detroit, succeeding Mr. Schilke. Wayne C. Fletcher, assistant general industrial commissioner at Huntington, W. Va., has been appointed director of industrial development at Cleveland, succeeding Charles R. Warren, retired. W. J. Harahan, Jr., industrial commissioner at Detroit, has been appointed assistant director of industrial development at Cleveland, and has been succeeded at Detroit by G. D. Moffett, Jr., industrial representative at Huntington, W. Va.

H. L. Arbenz has been appointed special engineer—operations at Richmond, Va., succeeding P. E. Brammer, whose promotion to assistant superintendent—trainmaster of the Cincinnati-Chicago division at Peru, Ind., was reported in *Railway Age* August 1. Mr. Arbenz was formerly assistant engineer at Richmond.

E. L. Morrison, Jr., superintendent freight transportation, has been appointed general superintendent computer applications, with headquarters as before at Richmond, Va. R. H. Hamilton, assistant to superintendent freight transportation, has been named assistant to general superintendent computer applications. C. V. Cowan, assistant superintendent freight transportation, succeeds Mr. Morrison as superintendent freight transportation. D. P. Morton, chief rating commissioner at Huntington, W. Va., retired September 1, after 35 years of service.

R. W. Cassidy has been appointed allotment commissioner at Huntington, succeeding W. D. McDaniel, who has been promoted to mine rating commissioner at that point. The positions of chief rating commissioner and assistant allotment commissioner have been abolished.

R. W. Llewellyn has been appointed master mechanic at Newport News, Va. The position of assistant master mechanic at Newport News, formerly held by Mr. Llewellyn, has been abolished.

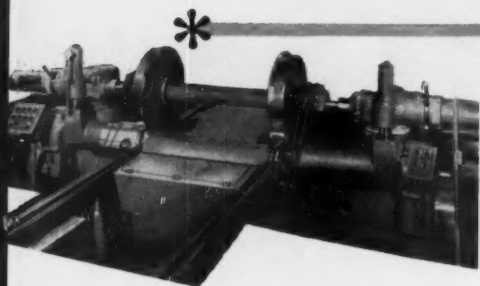
CONSOLIDATED OF CUBA—CUBA—CUBA NORTHERN—GUANTANAMO & WESTERN.—These roads have moved their Havana offices to the Ambar Motors building, Eighth floor, No. 55, 23rd street, Vedado, Havana, Cuba.

Eugene Molinet continues as assistant to president, with headquarters at (Continued on page 72)



DENVER & RIO GRANDE WESTERN.—Gale B. Aydelott, vice-president and general manager, has been named executive vice-president, a post which has been vacant since June 1954. A career sketch of Mr. Aydelott was published in *Railway Age*, November 1, 1954.

the **Standard** WHEEL TRUING MACHINE for **ALL**



From a locomotive to a pair of mounted wheels, the **Standard** Wheel Truing Machine is equipped to handle all truing jobs.

WHEEL WORK

One man operation by push button controls. The **Standard** Wheel Truing Machine eliminates the costly delay of dropping trucks and removing wheel and axle assemblies for turning of wheels. The **Standard** Wheel Truing Machine is the most efficient method for restoring wheels to contour for cars or locomotives, whether on or off the equipment.



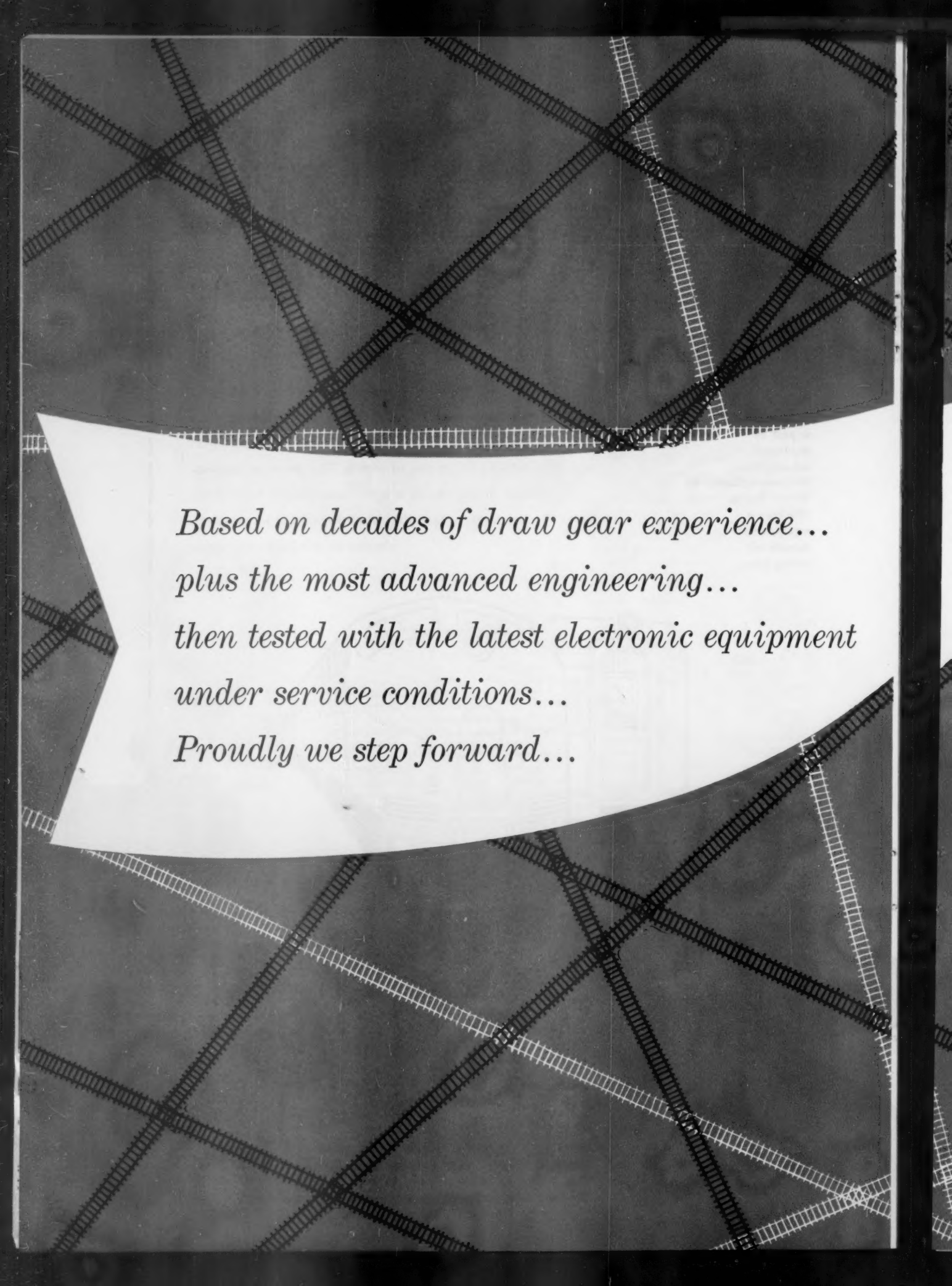
Standard

RAILWAY EQUIPMENT MANUFACTURING COMPANY

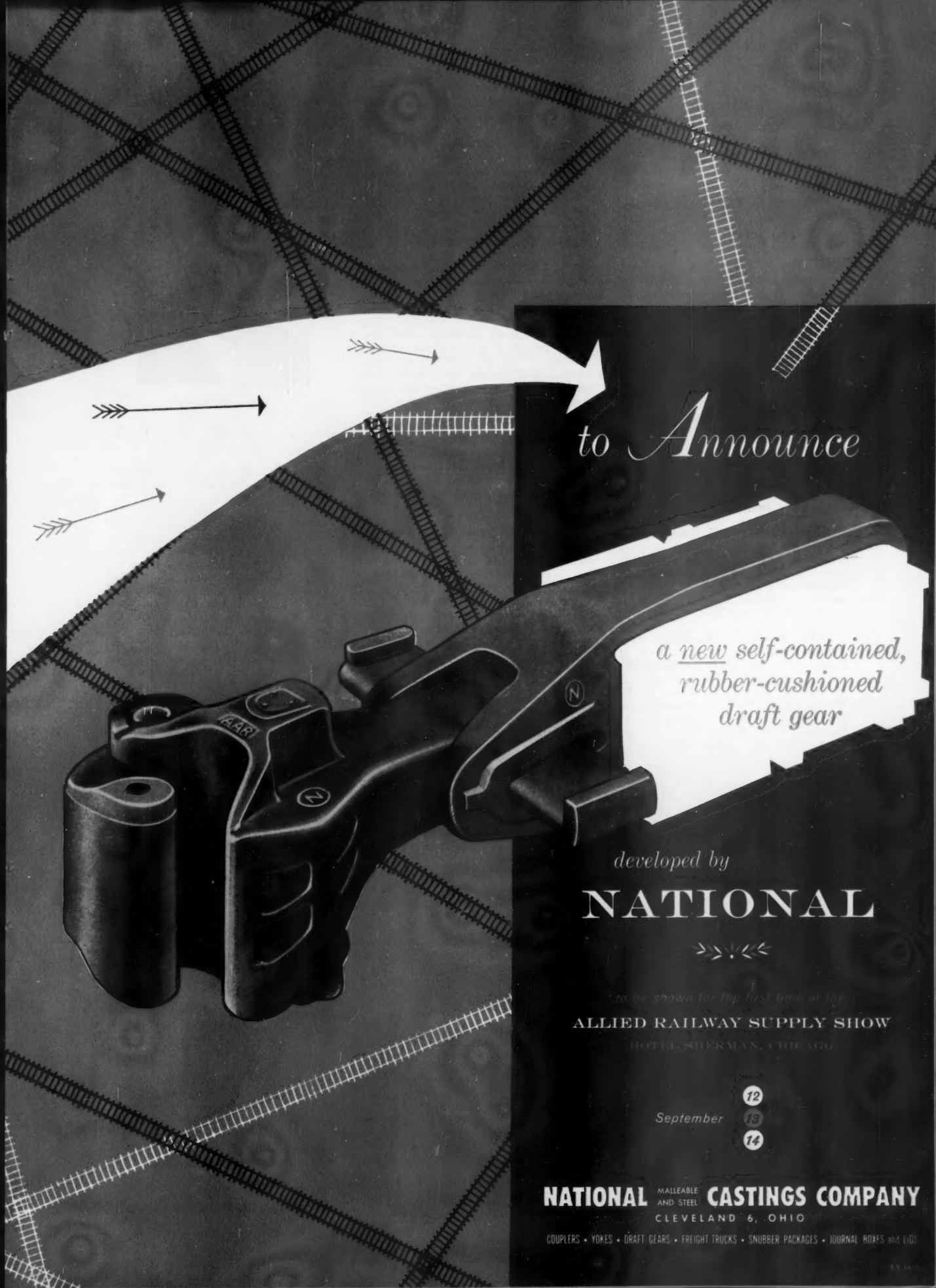
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*Based on decades of draw gear experience...
plus the most advanced engineering...
then tested with the latest electronic equipment
under service conditions...
Proudly we step forward...*



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*a new self-contained,
rubber-cushioned
draft gear*

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to be shown for the first time at the
ALLIED RAILWAY SUPPLY SHOW
HOTEL SHERMAN, CHICAGO

September

12

13

14

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CLEVELAND 6, OHIO

COUPLERS • YOKES • DRAFT GEARS • FREIGHT TRUCKS • SNUBBER PACKAGES • JOURNAL BOXES and LIDS

Railway Officers

(Continued from page 68)

Grand Central Terminal building, New York.

DULUTH, MISSABE & IRON RANGE.—Effective July 1, **Donald B. Shank** was appointed superintendent, succeeding **Edgar W. Conliff**, retired.

ELGIN, JOLIET & EASTERN.—**LaVerne C. Hahney**, superintendent of safety, has been appointed director of safety and employee activities. The position of superintendent of safety has been abolished.

Paul H. Verd, general superintendent at Joliet, Ill., has been appointed acting general manager at Chicago, with jurisdiction over the maintenance of way, maintenance of equipment and transportation departments. His successor is **Robert Hobson**. **J. Walter O'Neill** has been named general superintendent transportation, and **J. R. Foreaker** has become superintendent of transportation, both with headquarters at Gary, Ind.

ERIE.—**Harrison O. Bush**, tie and timber agent, has retired after 37 years of service, and the position of tie and timber agent has been abolished. **Raphael R. Poux** has been appointed supervisor timber and treatment inspection at Marion, Ohio.

FRISCO.—**R. P. Shoaf** has been appointed assistant superintendent at Tulsa, Okla., and **T. S. Sullivan** has become trainmaster, Eastern division at Springfield, Mo. **E. R. Pike**, **J. R. Warfield**, and **S. E. Zeilmann** have been named terminal trainmasters at Memphis, Tenn., Kansas City, Mo., and Birmingham, Ala., respectively.

GEORGIA & FLORIDA.—**Frank E. Griffin** has been appointed assistant to chief operating officer at Augusta, Ga.

GREAT NORTHERN.—**C. H. Wesman**, communications engineer at St. Paul, has been appointed assistant superintendent communications, Inside Plant, at St. Paul, having jurisdiction over entire system. **Earl F. Thompson**, assistant superintendent communications at St. Paul, has retired after 50 years of service, and has been succeeded by **L. H. McFadden**.

GULF, MOBILE & OHIO.—**L. L. Deck** has been appointed district freight and passenger agent at Detroit, Mich.

ILLINOIS CENTRAL.—**Roy A. Vinall**, general agent at Minneapolis, has been transferred to Cleveland, succeeding **Lester A. Schellenberger**, who has been appointed general merchandise agent at Chicago. **James W. Peery** replaces Mr. Vinall.

KANSAS CITY SOUTHERN.—**H. W. Gilbert** has been appointed

freight traffic manager in charge of rates and divisions at Kansas City, Mo. **W. R. Henry** and **J. R. McClurken** have been named assistant freight traffic managers (rates) at Kansas City and St. Louis, respectively. **A. McConnell** has been appointed general freight agent in charge of divisions, and **R. W. DeLay** has become assistant general freight agent (rates), both at Kansas City.

LACKAWANNA.—**J. Hampton Baumgartner**, manager of public relations at New York, retired from full-time service September 1, to enter public relations counsel practice. Mr. Baumgartner will continue with the Lackawanna as public relations counsel. **Martin P. Nelson**, manager of mail, express, baggage and milk traffic, has been promoted to assistant to president, in charge of public relations, and will retain general supervision of the other department.

Dr. William T. Davis, chief medical officer, retired September 1. **Dr. John O. MacLean**, chief surgeon of Moses Taylor Hospital, has assumed the additional duties of Dr. Davis with the road.

LEHIGH & NEW ENGLAND.—**H. S. Drumheller**, secretary and assistant treasurer at Bethlehem, Pa., has been elected treasurer and appointed assistant to president, in addition to continuing as secretary. **G. E. Smell**, treasurer and assistant secretary, retired August 31 after 39 years of service. **N. L. Grinager** has been elected assistant secretary and assistant treasurer.

LEHIGH VALLEY.—**Peter J. Ellis**, assistant manager, has been appointed manager, lightering and stations, New York harbor, with headquarters at 6 Broadway, New York.

MILWAUKEE.—**W. F. Plattenberger**, **Q. W. Torpin**, and **J. E. Ryan** have been named trainmasters, Chicago Terminals at Galewood, Ill., Milwaukee Terminals at Milwaukee, and Terre Haute division at Faithorn, Ill., respectively.

MISSOURI-KANSAS-TEXAS.—**Charles T. Williams**, assistant vice-president and general manager since April, has been appointed vice-president and general manager at Dallas, Tex., succeeding **Horace M. Warden**, who retired August 31, after 41 years of service with Katy. The office of assistant vice-president and general manager has been abolished.

MISSOURI PACIFIC.—**R. C. Speer**, assistant trainmaster, Central division, at Van Buren, Ark., has been appointed trainmaster, Northern Kansas division, at Concordia, Kan., replacing **F. Sparks**.

John A. Fetz, general agent at Atlanta, Ga., has been promoted to assistant traffic manager at Memphis, succeeding the late **R. W. Moss**. Mr.

Fetz's successor is **Robert J. Ball**, who has been promoted from general



John A. Fetz

agent at Brownsville, Tex. **E. L. Spenrath** succeeds Mr. Ball.

MONON.—**Frank E. Triboulet**, assistant freight claim agent at Chicago, retired August 1.

NEW HAVEN.—This road has reorganized its mechanical department to improve locomotive reliability and functioning of air conditioning apparatus. **W. J. Harlow**, general mechanical superintendent at New Haven, has become general master mechanic, and the division master mechanics and the traveling master mechanic will report to him. **Wilson E. Symons**, assistant general mechanical superintendent, has been designated superintendent of equipment; under him will come the car and locomotive cleaning supervisor, supervisor of apprentices, production supervisor, supervisor of car maintenance, inspector of passenger train equipment and engineer of tests. **Russell H. Davies**, superintendent of car maintenance, has been named general shop superintendent, with authority over the shops at Van Nest, N.Y., and Readville, Mass. **Ralph B. Hart**, office assistant in the mechanical department, has been appointed assistant to chief mechanical officer. **Carl L. Hartshorn**, assistant to general mechanical superintendent, has become superintendent of power plants and facilities; he will not only have authority over all power plants but will have responsibility for machine tool modernization, work method procedures, simplification and mechanization. **Virgil S. Dowden**, assistant mechanical engineer, has been appointed electrical engineer, with responsibility for the operation and performance of air conditioning and equipment, among other things. **Joseph M. Quinn**, assistant superintendent of car maintenance, has been named supervisor of car maintenance. **George J. Higgins**, assistant to general mechanical superintendent, has been appointed traveling or acting master mechanic, with headquarters at Stamford, Conn., having

(Continued on page 76)

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TREATMENT means Longer Service Life Reduced Maintenance Costs

In Amcreco cross ties, bridge timbers and piles, Lowry Process Pressure Treatment makes the big difference. The natural strength of the wood is preserved to assure long dependable service.

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That wheel is the 1.5% carbon cast steel wheel—the Southern steel wheel that has been under development since 1941 and road tested since 1947 . . . rolling up more than 5½ million car miles, with many wheels already past the 200,000 mile mark.

This cast steel wheel was developed for one purpose only: to put the strength and stamina of steel in today's

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Only after years of research, after years of road test—when we were convinced we had the *right* wheel—did we begin commercial production. From our many years of wheel making experience we designed, built and equipped a brand new plant to make nothing else but this new steel wheel. Here you see some of the modern manufacturing

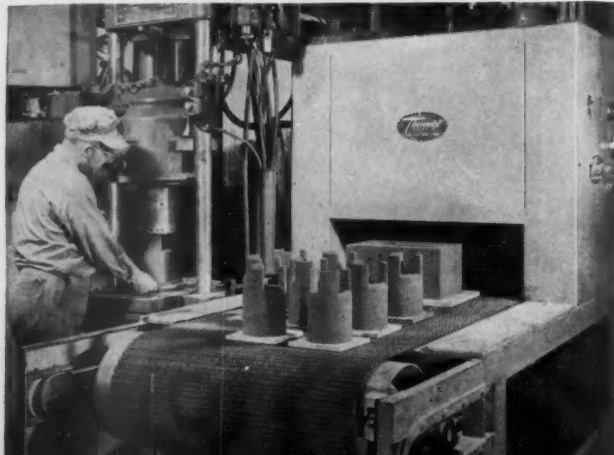
facilities that make possible such high quality freight car wheels at such low cost.

If you would like to learn more about these service-proven wheels, ask your Southern Wheel representative for the new 36-page illustrated booklet, "The First Five Million Miles." Or write American Brake Shoe Company, Southern Wheel Division, 230 Park Avenue, New York 17, New York (Member of AMCCW).

Powerful sand slinger fills and rams molds. Modern equipment helps cut costs throughout production areas.



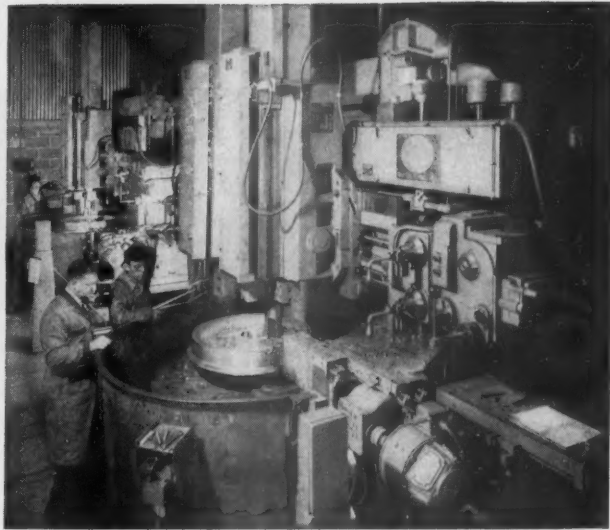
Cores are pneumatically molded and then baked in dielectric ovens. The rectangular object is a test sample mold for quality control.





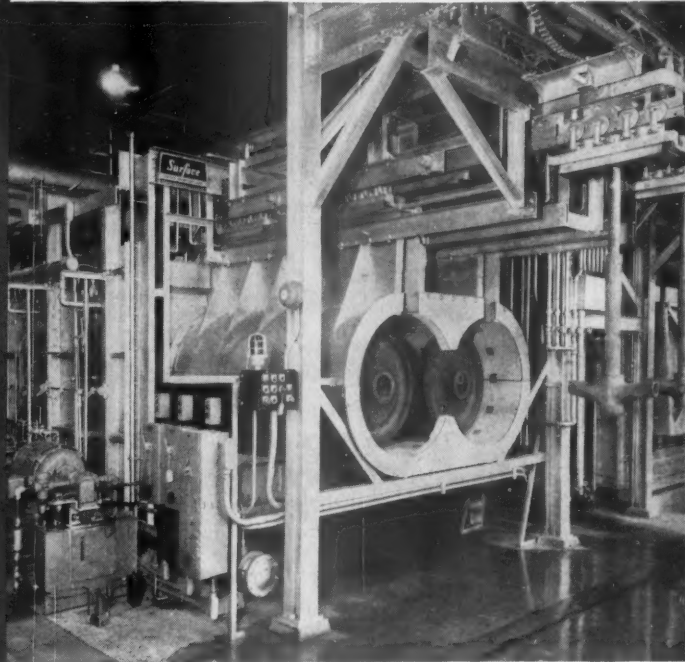
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Railway Officers

(Continued from page 72)

jurisdiction over all mechanical matters from Norwalk, Conn., to New York.

NEW YORK CENTRAL.—F. T. Putney, road foreman at Malone, N.Y., has been appointed trainmaster, St. Lawrence—Ottawa division, at Massena, N.Y. E. P. Stonehouse has been appointed trainmaster, Electric division, at New York and R. B. Hasselman has been named trainmaster, Hudson—Mohawk division at Albany, N.Y.

NEW YORK CITY TRANSIT AUTHORITY.—Col. Sidney H. Bingham, executive director and general manager of the authority, which operates the rapid transit and surface transportation facilities owned by New York City, has resigned, effective February 1, 1956. Col. Bingham, whose terminal leave begins October 1, will enter private consulting engineering practice.

READING.—John Green has been appointed public relations representative, and W. E. Zelnor has been named public relations agent.

SANTA FE.—Clarence C. Thompson, passenger traffic manager at Los Angeles, retired August 31 after more than 50 years of railroad service, including 41 with the Santa Fe.

SOUTHERN PACIFIC.—W. H. Ferguson, assistant superintendent, Western division at Oakland Pier, Cal., has been appointed superintendent, San Joaquin division at Bakersfield, Cal., succeeding W. E. Eastman, who has been moved to Los Angeles as superintendent of the newly created Yuma division (*Railway Age*, August 29, page 43). Jay H. Long replaces Mr. Ferguson. T. A. Purcell, assistant division superintendent at Beaumont, Cal., has been named assistant superintendent, Yuma division at Los Angeles.

OBITUARY

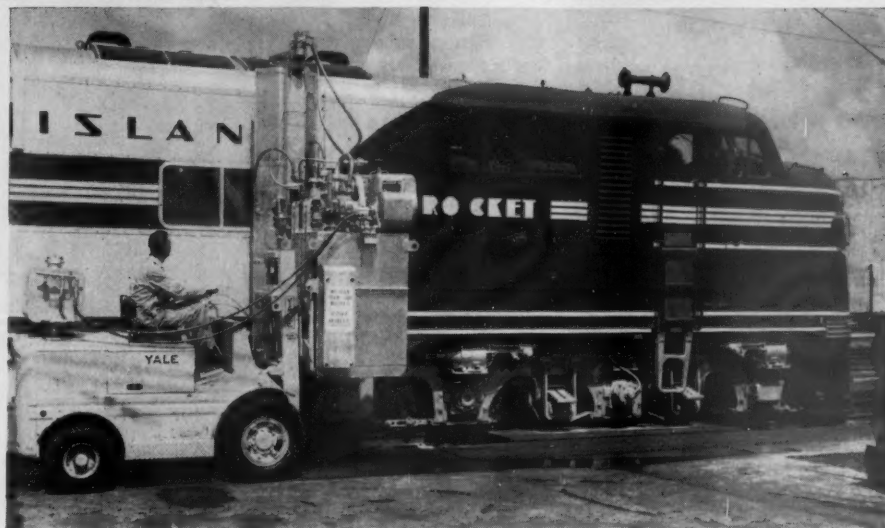
Edward A. McCarthy, retired assistant traffic manager of the Western Pacific, died August 29 at Los Angeles.

Ben H. Decker, 62, executive representative of the Denver & Rio Grande Western at Salt Lake City, died August 25 in that city.

David W. Pontius, 86, who retired in 1939 as chairman of the board of Pacific Electric, died September 3 at Good Samaritan Hospital, Los Angeles, Cal.

O. A. C. Thorsen, 52, chief engineer of the New York, Susquehanna & Western since 1945, died August 27.

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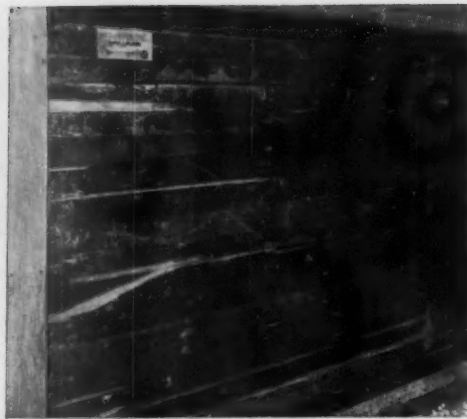


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strips missing;
badly needing repair

TO THIS ▶

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moisture repellent;
easy to clean



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broken—invites
termites, infestation

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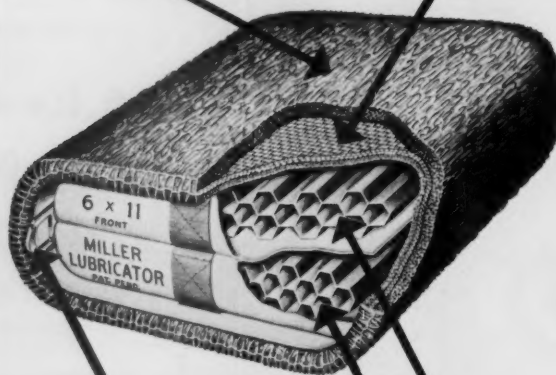
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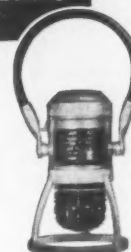
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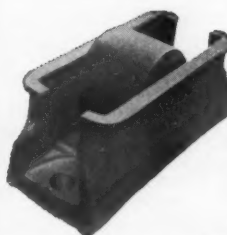
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ADVERTISERS IN THIS ISSUE

| | |
|---|--------------------|
| A | |
| American Brake Shoe Company, National Bearing Division | 37, 38 |
| Agency—Fuller & Smith & Ross, Inc. | |
| American Brake Shoe Company, Southern Wheel Division | 74, 75 |
| Agency—Fuller & Smith & Ross, Inc. | |
| American Creosoting Co., Inc. | 73 |
| Agency—Russell T. Gray, Inc. | |
| American Steel & Wire Division, United States Steel Corporation | 34, 35, 71, 82 |
| Agency—Batten, Barton, Durstine & Osborn, Inc. | |
| Armco Steel Corporation | 1 |
| Agency—N. W. Ayer & Son, Inc. | |
| Automatic Electric Sales Company | 40 |
| Agency—Proebsting-Taylor, Inc. | |
| B | |
| Barco Manufacturing Company | 64 |
| Agency—Armstrong Advertising Agency | |
| Boyer, R. H. | 83 |
| Buffalo Brake Beam Company, Unit Truck Corporation | Inside Front Cover |
| C | |
| Classified Advertisers | 83 |
| Coach & Car Equipment Company | 81 |
| Agency—O'Neil, Larson & McMahon | |
| Colonna, Angelo | 79 |
| Agency—H. Lesseaux | |
| Columbia Geneva Steel Division, United States Steel Corp | 34, 35, 71, 82 |
| Agency—Batten, Barton, Durstine & Osborn, Inc. | |
| Crane Company | 42 |
| Agency—The Buchen Company | |
| D | |
| Davis, S. M. | 83 |
| E | |
| Eagle Manufacturing Company | 58 |
| Agency—Sykes Advertising, Inc. | |
| F | |
| Fairbanks-Morse & Co. | 59 |
| Agency—The Buchen Company | |
| Federal Telephone & Radio Corp. | 21 |
| Agency—J. M. Mathes, Inc. | |
| Fleming, T. J. | 17-20 |
| Agency—Alfred Colle Co. | |
| Foster Co., L. B. | 58 |
| Agency—Lando Advertising Agency | |
| G | |
| General Steel Castings | 63 |
| Agency—Oakleigh R. French & Associates | |
| Graybar Electric Co., Inc. | 39 |
| Agency—G. M. Barford Company | |
| Griffin Wheel Company | 32 |
| Agency—Erwin, Wasey & Company, Ltd. | |
| H | |
| Heywood-Wakefield Company | 12 |
| Agency—Charles W. Hoyt Company, Inc. | |
| Hyman-Michaels Company | 83 |
| I | |
| Industrial Brownhoist Corp. | 33 |
| Agency—Price, Tanner, & Willox, Inc. | |
| International Harvester Company | 29 |
| Agency—Aubrey, Finlay, Marley & Hodgson | |
| International Steel Company | 31 |
| Agency—W. S. Kirkland Advertising | |
| Iron & Steel Product, Inc. | 83 |
| K | |
| Kaiser Aluminum & Chemical Company | 28 |
| Agency—Young & Rubicam, Inc. | |
| Kaplan Co., M. S. | 77 |
| Agency—Central Advertising Service | |
| Kerite Company, The | Inside Back Cover |
| Agency—O. S. Tyson & Company, Inc. | |
| L | |
| LeTourneau-Westinghouse Company | 62 |
| Agency—Andrews Agency, Inc. | |
| M | |
| Milar & Company | 65 |
| Miller Lubricator | 80 |
| Agency—Kerker-Peterson & Assoc. | |
| Miner, Inc., W. H. | 57 |
| Mississippi Valley Equipment Co. | 83 |
| Morton Mfg. Company | 76 |
| Agency—W. S. Kirkland Advertising | |
| N | |
| National Bearing Division, American Brake Shoe Company | 37, 38 |
| Agency—Fuller & Smith & Ross, Inc. | |
| National Malleable & Steel Castings Company | 70, 71 |
| Agency—Palm & Patterson, Inc. | |
| National Motor Bearing Company, Inc. | 14, 15 |
| Agency—L. C. Cole Company | |
| New York Central | Back Cover |
| Agency—J. Walter Thompson Co. | |
| P | |
| Pullman-Standard Car Mfg. Company | 22, 23 |
| Agency—Fuller & Smith & Ross, Inc. | |
| R | |
| Railway Educational Bureau, The | 83 |
| Ramapo Ajax Division | 67 |
| Agency—L. W. Ramsey Advertising Agency | |
| Ross and White Company | 77 |
| S | |
| SKF Industries, Inc. | 24, 25 |
| Agency—O. S. Tyson, & Company, Inc. | |
| Southern Wheel Division, American Brake Shoe Company | 74, 75 |
| Agency—Fuller & Smith & Ross, Inc. | |
| Speno Railroad Ballast Cleaning Company, Inc., Frank | 80 |
| Agency—Laur Advertising, Inc. | |
| Sperry Rand Corporation, Remington Rand Div. | 36 |
| Agency—Leeford Advertising Agency, Inc. | |
| Spring Packing Corp. | 78 |
| Agency—William Hart Adler, Inc. | |
| Standard Railway Equipment Mfg. Company | 69 |
| Agency—W. S. Kirkland Advertising | |
| Star Headlight & Lantern Co. | 83 |
| Agency—Hutchins Advertising Co. | |
| Stucki Co., A. | 83 |
| T | |
| Tennessee Coal & Iron Division, United States Steel Corporation | 34, 35, 71, 82 |
| Agency—Batten, Barton, Durstine & Osborn, Inc. | |
| U | |
| Union Asbestos & Rubber Company, Equipco Hand Brake Division | 30 |
| Agency—The Buchen Company | |
| Union Switch & Signal Division of Westinghouse Air Brake Company | 2 |
| Agency—Batten, Barton, Durstine & Osborn, Inc. | |
| United States Steel Corporation, United States Steel Export Company | 34, 35, 61, 82 |
| Agency—Batten, Barton, Durstine & Osborn, Inc. | |
| Unit Truck Corporation, Buffalo Brake Beam Co. | Inside Front Cover |
| V | |
| Vanadium Corporation of America | 26 |
| Agency—Hazard Advertising Company | |
| W | |
| Waugh Equipment Company | 27 |
| Westinghouse Air Brake Company | 4 |
| Agency—Batten, Barton, Durstine & Osborn, Inc. | |
| Wine Railway Appliance Company | Front Cover |
| Agency—Thomas J. Stead Advertising | |

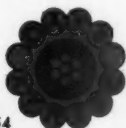


When Tutankhamen, King of Egypt, was put to his rest, it was to be forever. His was to be a permanent monument, and his body was mummified with unique skill. These burial preparations went a long way toward overcoming the destructive effects of time. King Tut's mummy still exists today—over 3,000 years after it was interred in the valley of the tombs of the kings.

Especially Built For Burial

Like King Tutankhamen's mummy, many Kerite Cables are especially built for long-time burial. But these Kerite Cables do not enjoy the favorable dry, almost air-tight conditions of King Tut's tomb. These cables must withstand all the adverse conditions encountered in direct burial in the ground from the Arctic to the Tropics. Yet when these underground cables are unearthed, even after years of service, they are, unlike King Tut, very much alive. The name Kerite is recognized, the world over, as the hallmark of endurance.

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NEW YORK CENTRAL SYSTEM

A. E. PERLMAN
PRESIDENT

September 10, 1955

TO OUR PASSENGERS AND SHIPPERS

In the New York Central Railroad our product is service. In marketing that service, we recognize the importance of gearing our transportation facilities more directly to the needs of shippers and passengers.

A new department -- Customer-Service Relations -- has been established to centralize the organized study of proposals for improving our freight and passenger service. It will co-ordinate at the top management level, the study and analysis of what our customers and potential customers want in the way of New York Central service.

The Customer-Service Relations Department is prepared to study all phases of our operations as they relate to an industry as a whole; to multi-plant or individual plants; to business firms; to trade, business and professional associations; to conventions; to our suppliers; to individual families and to other groups.

Since the Customer-Service Relations Department is not tied down with the day-to-day duties of running the railroad, its full time is devoted to tailoring New York Central Service to the needs of those who buy it.

In the passenger field, so long in a period of contraction, radically new, more modern and economical equipment should soon enable us to offer more frequent and comfortable service.

If you have any problems involving freight or passenger transportation between the East and Midwest; if you have any suggestions for gearing the service of the Central to make it more attractive to our shippers and passengers -- our Customer-Service Relations Department will be glad to receive them.

New York Central policy is to render good service. Where subsidy of competitors, taxation and other factors beyond its control make good service uneconomic or impossible, our policy will be to discontinue service. A free economy and a virile management can no more tolerate poor service than our customers can.

A. E. Perlman